Emil, George & Lewis . 49
'Dacron' textiles . . . 56
Du Pont & research . . . 61
Waste factor & neps . . 65
'Travelerless' yarn? . 70
Draper Corp. history . 79

textile bulletin

MAY • 1951

SERVING THE TEXTILE INDUSTRY SINCE 1899

Sectional
INDEX

atching
ashington 17
•
t Others Are
ving 42
•
itorials 49
•
ching, Picking,
arding & Spinning . 65
•
arp Preparation
Weaving 77
•
hing, Dyeing
Finishing 89
•
intenance, Engi-
eering & Handling . 99
•
rsonal News
Obituaries 105
•
Mill News 110
•
The Textile
stry's Use 114
•
thern Sources
Supply 142
•
ified
ertising 148

ILE BULLETIN is published hly by Clark Publishing 218 West Morehead St., otte 2, N. C. Subscription per year in advance, $3 ee years. Entered as d-class mail matter ch 2, 1911, at Postoffice, te, N. C., under Act ongress, March 2, 1897.

NEW

for PACKAGE DYEING!

Sonoco's
PLASTAVON
FILTER SLEEVE
for use with the
DYTEX® TUBE

FOR
ONE-TIME
USE

Standard Sizes
⅝" I. D.—
6¾" long
1⅝" I. D.
with varying
lengths
Special Sizes also available

Here, at last, is a superior filter for package dyeing — designed to give you clean, even, "clear-through" penetration.

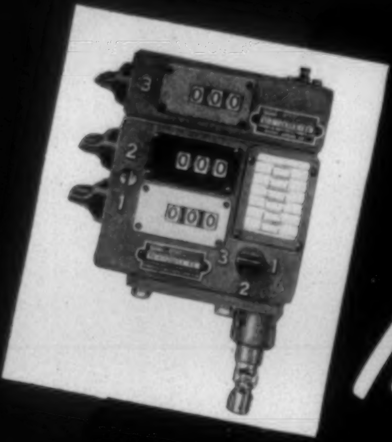
For use with SONOCO's disposable Dytex Tube, the Plastavon Sleeve affords maximum protection against objectionable or discoloring matter; acts as a "cushion" to reduce the velocity and distribute the flow of the dye liquor; is highly absorbent and allows the dye to spread out and penetrate all the yarn next to the tube.

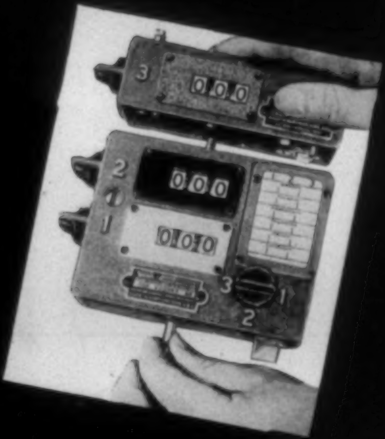
In addition, it helps to reduce slippage in the primary winding.

For further information, contact your SONOCO *representative or write direct to the nearest office.*

SONOCO PRODUCTS COMPANY
BRANTFORD ONT
HARTSVILLE S. C
MYSTIC CONN

DEPENDABLE SOURCE OF SUPPLY

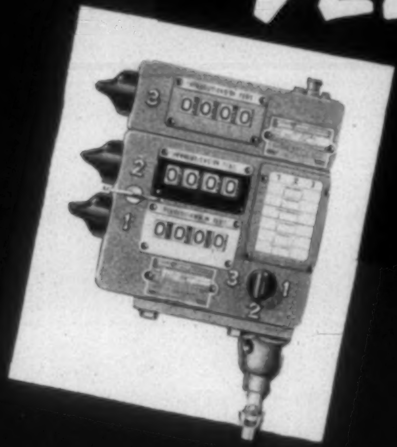




It's Always

at

VEEDER-ROOT

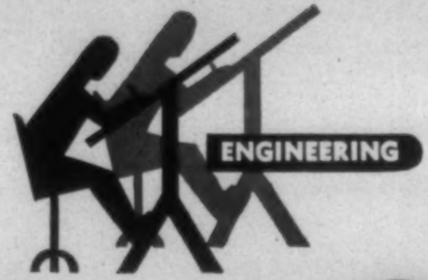


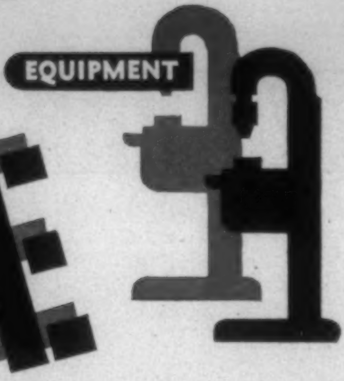
VEEDER-ROOT will keep them coming, just as many and as fast as possible . . . but remember that "first things first." And Veeder-Root is called upon to do the most it can for Military Musts.

Meantime, of course, we will do all we can for those who need Veeder-Root *Count*rol in their mills. If you need 2-3 Pick, Hank, Yardage or Revolution Counters . . . make your needs known *now* to your Veeder-Root Field Engineer. Get in touch with the nearest Veeder-Root office *today*.

VEEDER-ROOT

"Counting House of the Textile Industry"





Our loom parts SERVICE is being Doubled

We feel that in these difficult times our service to our customers is more important than ever before. Your looms must be kept in the most efficient operating condition possible.

Therefore, over one and one-half million dollars is being spent to increase the capacity of the East Spartanburg plant and to enlarge our warehouses and offices in Spartanburg and Atlanta. By the installation of additional machine tools and especially of the most modern and up-to-date mechanized equipment in the foundry, production will be more than doubled. The planned production step-up is designed to improve the delivery of loom parts.

Additional expert sales and service men have been added to our force to assist you. Backing up the sales and service force, our engineering and research departments stand ready to be of service in solving your problems. This skilled force of technicians have at their command the accumulated knowledge of over fifty years of the art of weaving on automatic looms.

If you are having trouble meeting defense or essential civilian requirements, don't hesitate to call us.

Draper automatic looms produce more cloth at less cost throughout D *the world.*

DRAPER CORPORATION

HOPEDALE, MASSACHUSETTS

PRODUCTION PROBLEMS

got you up a tree?

● The function of our Technical Service Department is to help solve various production problems in the field. These men are constantly working with new products and techniques—perhaps this experience would be helpful in smoothing out production sore spots in your operation.

Our basic, continuing research in starch chemistry is unsurpassed . . . under the direction of the foremost research men in this field.

Make the most of these facilities . . . no obligation, of course.

For uniform quality products . . . for a reliable source of supply . . . depend on Corn Products Refining Company.

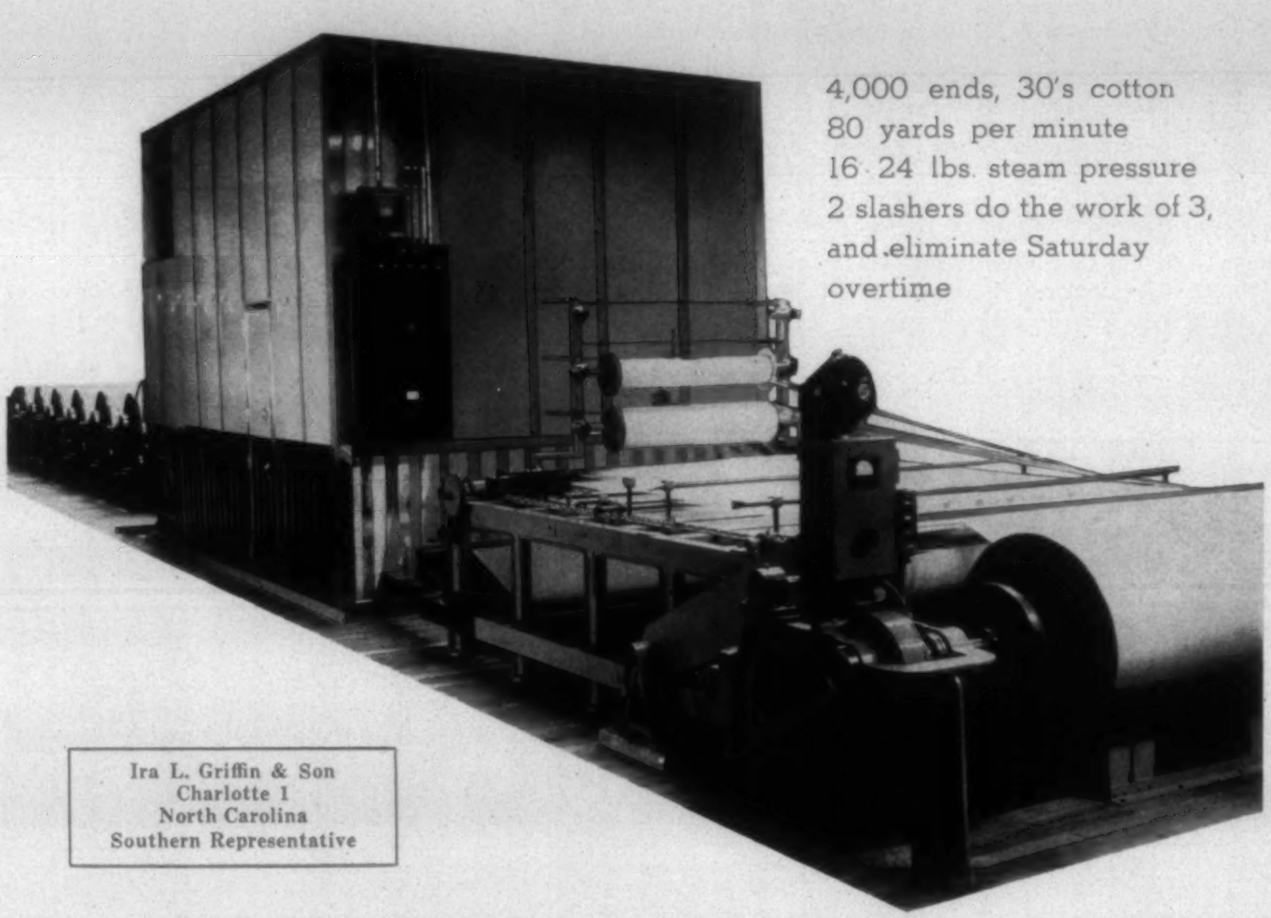
write to

CORN PRODUCTS REFINING CO.

17 Battery Place, New York 4, N. Y.

Globe and Eagle are
registered trade-marks of
Corn Products Refining Company,
New York, N. Y.

Can you do this on YOUR PRESENT SLASHER?

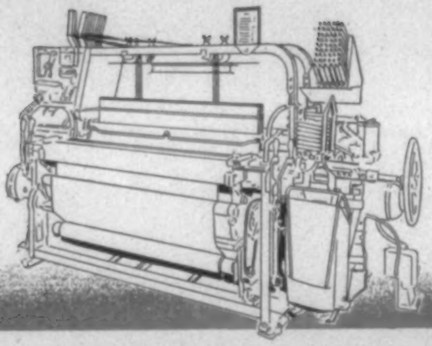


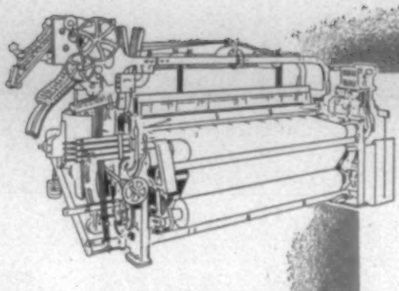
4,000 ends, 30's cotton
80 yards per minute
16-24 lbs. steam pressure
2 slashers do the work of 3,
and eliminate Saturday
overtime

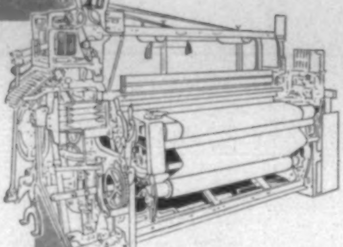
Ira L. Griffin & Son
Charlotte 1
North Carolina
Southern Representative

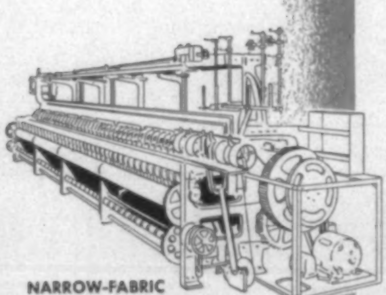
The "Uxbridge Gentle-Air" can, and is doing it for one customer — comparable jobs for many customers. Thoroughly tested for (5) years under all kinds of operating conditions — slashing wools, cottons, man-made fibers and blends of all three — The "Uxbridge Gentle-Air" can give you more warps and better warps for a lot less than you are paying now, and save your floor space too.

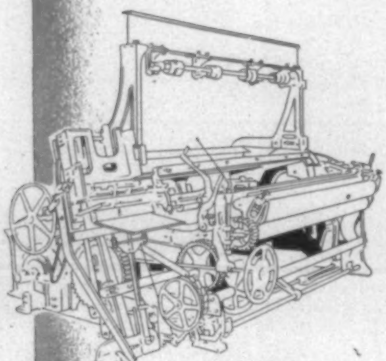
BACHMANN UXBRIDGE WORSTED CORP.
UXBRIDGE, MASSACHUSETTS


S LOOMS


W LOOMS


C LOOMS


NARROW-FABRIC LOOMS


DUCK LOOMS

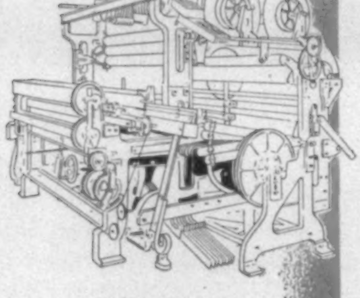
World's Longest Line of Looms

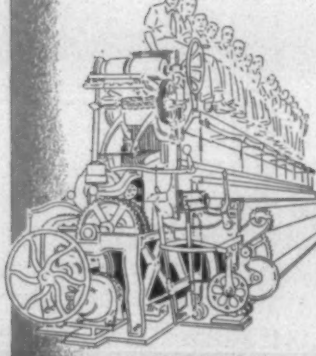
...built by

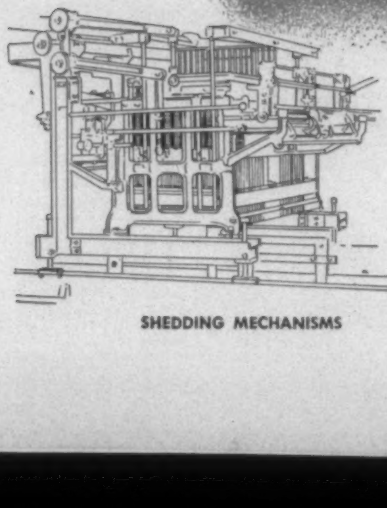
This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

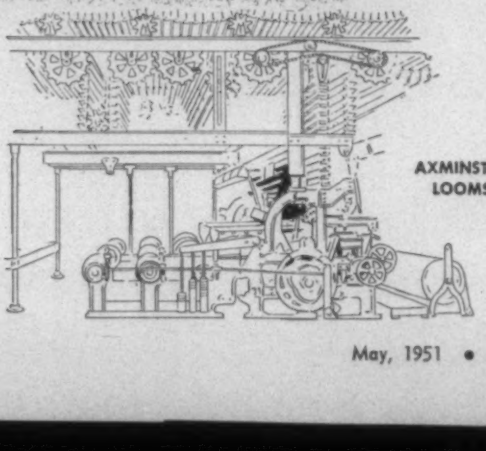
CROMPTON & KNOWLES LOOM WORKS

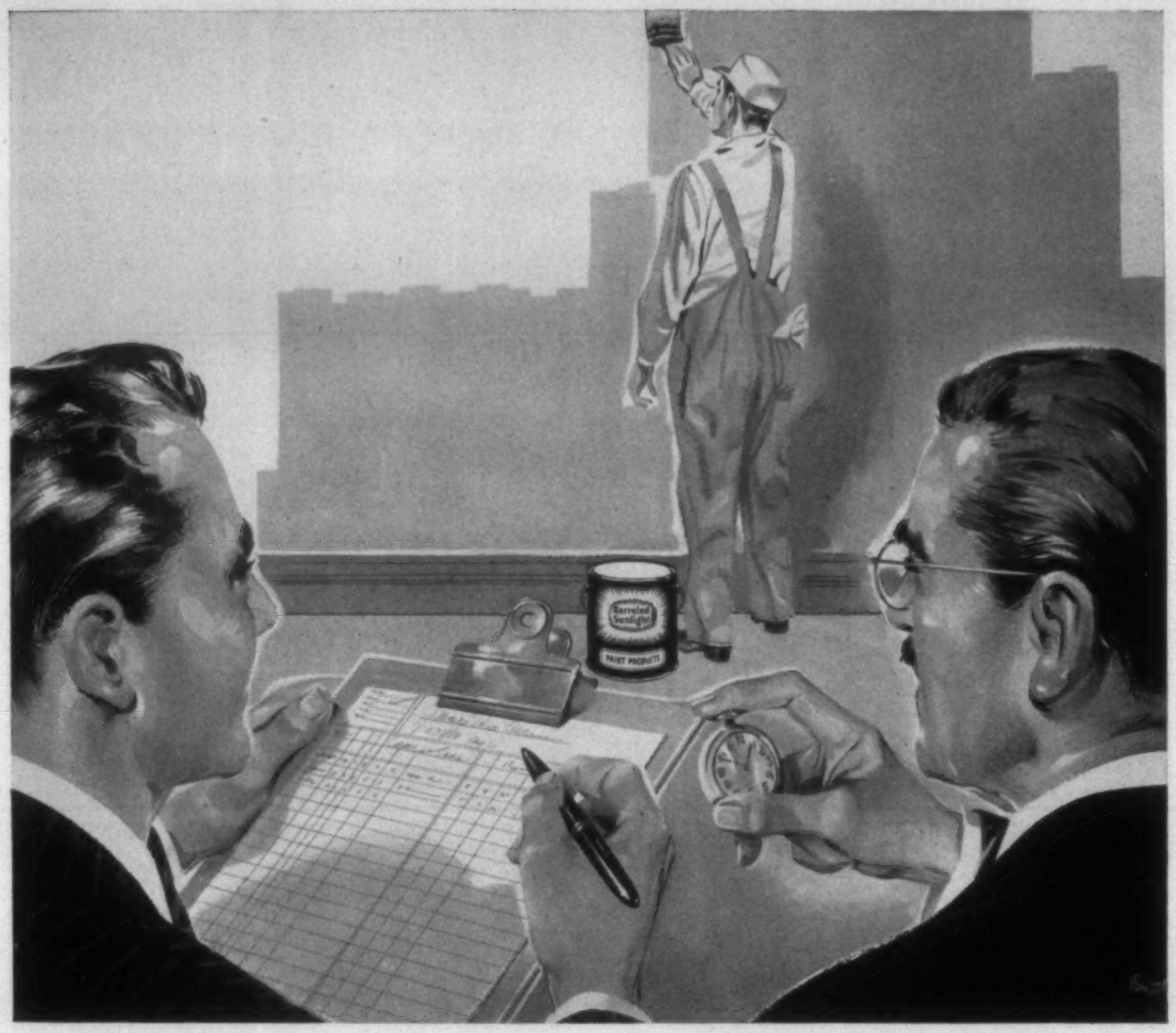
WORCESTER 1, MASSACHUSETTS, U. S. A.
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.
CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R. I.


PLUSH LOOMS


FELT LOOMS


SHEDDING MECHANISMS


AXMINSTER LOOMS



Have You Ever Made THIS Time Study?

Never forget this most important fact: the biggest element in your maintenance painting costs is the *time* element. Because time represents man hours . . . labor . . . and labor counts for at least *eighty percent* of the cost of any painting job.

That's why we recommend this simple test. Take a gallon of "Barreled Sunlight" and a gallon of any other brand you may now be using. Thin both according to directions and apply under identical conditions. Then compare . . . *not* by price per gallon but by the amounts of paint "ready for the brush" after thinning, the appearance of the finished job and — most important of all — the time it takes to cover the same amount of surface.

Smart maintenance men the country over who have made this simple "time study" have discovered that the real yardstick of painting costs is not price per gallon but the *applied cost per square yard* for both materials *and labor*. And on that basis, they've learned for themselves that "Barreled Sunlight" delivers a better-looking, longer-lasting job at lower cost than any other paint.

Our representative will be pleased to arrange one of these tests for you — right in your own plant and at your convenience. Write — and he'll call.

BARRELED SUNLIGHT PAINT CO.
5-E Dudley St., Providence, R. I.

Barreled Sunlight Paints

In whitest white or clean, clear, pleasing colors, there's a Barreled Sunlight Paint for every job

IT ALWAYS COSTS MORE NOT TO PAINT!

4 FACTORIES

6 REPAIR SHOPS

7 DISTRIBUTING POINTS

Ashworth CARD CLOTHING

4 factories . . . 6 repair shops . . . 7 distributing points . . . here's an unbeatable line-up for quality and service. It means dependability, promptness and convenience in your supply of card clothing and associated products.

Wherever your are, you'll find Ashworth distributing points close at hand to make readily available consistently high quality products — the result of 90 years experience in cards and card clothing by one family.

To get the most from your cards . . . to get the most for your money . . . ask today about the free Ashworth Surveys.

PRODUCTS AND SERVICES

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire, Lickerins and Top Flats Reclothed.

ASHWORTH BROS., INC.

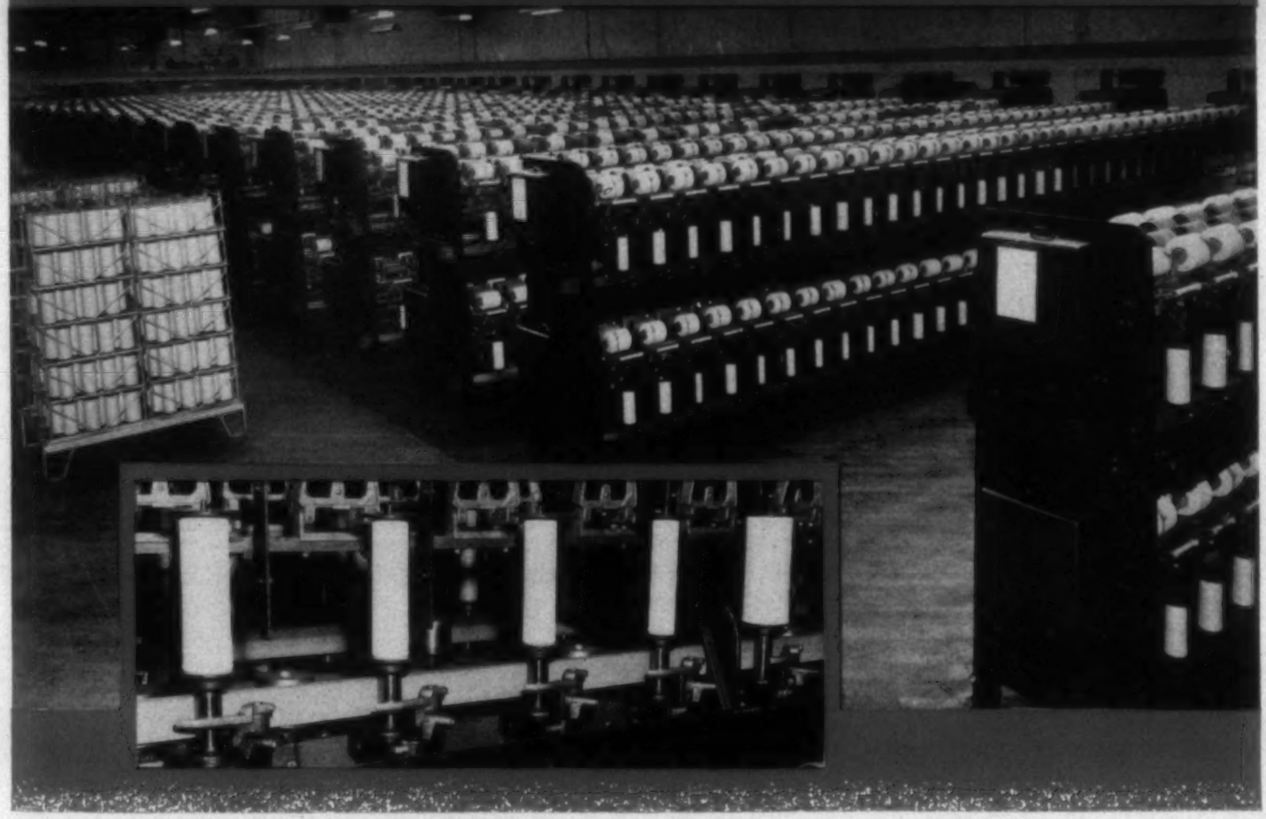
American Card Clothing Co. (Woolen Division)

Fall River *†‡ Worcester *‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Factory* Repair Shop† Distributing Point‡

Marquette ROLLER BEARING SPINDLES

with FULL FLOATING FOOTSTEP BEARING

FOR COTTON • RAYON • NYLON • WOOL • WORSTED



This modern mill, one of several controlled by the Duplan Corporation, ran a test on a single frame of Marquette Roller Bearing Spindles in 1946. As a result, they have since placed many orders for Marquette Spindles—and today have more than 220,000 in operation on both old and new frames.

These Marquette Spindles are running at high speeds, with large packages. They are producing yarn of highest quality. Power and maintenance costs have been reduced.

You too can increase your production and reduce your costs by modernizing your old frames with Marquette Roller Bearing Spindles or by specifying them on new frames. *We will be glad to prove this through a test installation.*

PROTECTED BY U. S. AND FOREIGN PATENTS, AND PATENTS PENDING

The Marquette
METAL PRODUCTS CO.
CLEVELAND 10, OHIO
SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Representatives:
C. H. WHITE, 412 W. BESSEMER ST., GREENSBORO, N. C.
WILLIAM P. RUSSELL, BOX 778, ATLANTA, GEORGIA
JOHN J. HALLISSY, 58 LIVINGSTON AVE., LOWELL, MASS.

Also Manufacturers of: **HYDRAULIC GOVERNORS • FUEL OIL PUMPS • FUEL OIL INJECTORS WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • PRECISION PARTS AND ASSEMBLIES**

TEXTILE AIR CONDITIONING

A Bahnson Central Station air conditioning system in this modern plant maintains humidity and temperature control in the cotton spinning room, but—whether processing cotton, rayon, nylon or wool, Bahnson engineers will study *your* particular requirements and recommend the Bahnson system best suited to *your* needs...

HUMIDUCT UNIT SYSTEM

CENTRAL STATION AIR WASHER SYSTEM

CENTRISPRAY AIR WASHER SYSTEM

AIR VITALIZER SYSTEM

Bahnson Engineering is based on 40 years experience
in textile air conditioning and Bahnson equipment
assures maximum efficiency at minimum cost.

The
Bahnson Company
AIR CONDITIONING · HUMIDITY CONTROL
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.

AAP Recalled to Active Duty!

Amanthrene*

OLIVE GREEN B
DARK OLIVE B

MILITARY VAT COLORS in paste and powder forms

TRIED AND PROVEN in World War II, these two AMANTHRENES once again answer the call of the military for superior **"O.D."** and **"O.G."** shades.

UNSURPASSED FOR FASTNESS Affording all around fastness properties, these military vat colors are readily adaptable to defense requirements for color-fast cottons and rayons.

MEETING EVERY NEED Suited to a variety of requirements, AMANTHRENE **Olive Green B** and **Dark Olive B** shades offer **excellent printability,** as well as **consistently good results** with every type of vat application.

WELL WORTH TRYING A.A.P. representatives are ready to show you in your own plant how these AMANTHRENES, or others of the range, can give you color fastness at its best. For a demonstration and individualized data, consult our nearest branch.

AMERICAN ANILINE PRODUCTS, INC.

50 Union Square, New York, N. Y.
Plant: Lock Haven, Pa.
Branches: Boston, Mass. • Providence, R. I.
Philadelphia, Pa. • Charlotte, N. C.
Chicago, Ill. • Los Angeles, Cal.
Chattanooga, Tenn.
Dominion Anilines & Chemicals, Ltd.
Toronto, Canada • Montreal, Canada

*Reg. U. S. Pat. Off.

Can't get 'em up on Monday?

If you can't get frame production up after week-end shut downs, due to bands popping off, or waste from slack bands, or from sticky wooden-bearing tape tension pulleys,—do as scores of other mills have done, and

get Meadows Modernizers

and you'll end Monday-morning band, sticky tape-pulley, and cylinder troubles *for keeps!*... Convert your frames to tape drive with Meadows individual drive pulley and ball-bearing tape tension pulleys, and be assured of even tension at *all times*—a more uniform speed and twist—fewer ends down. Can be easily and quickly installed on either band-driven or old-style tape driven frames.

"My frames are turning out MORE and BETTER yarn since I modernized with MEADOWS"

MEADOWS MANUFACTURING COMPANY • ATLANTA, GEORGIA

Representatives: JAMES P. COLEMAN, P. O. Box 1351, Greenville, South Carolina • WALTER S. COLEMAN, P. O. Box 722, Salisbury, North Carolina • MATTHEWS EQUIPMENT COMPANY, 93-A Broadway, Providence, Rhode Island • SAM HOGG, Atlanta, Georgia

Gateway

– to textile sales –

National and World-wide

ISELIN-JEFFERSON
CO., INC.
90 WORTH STREET • NEW YORK 13, N. Y.

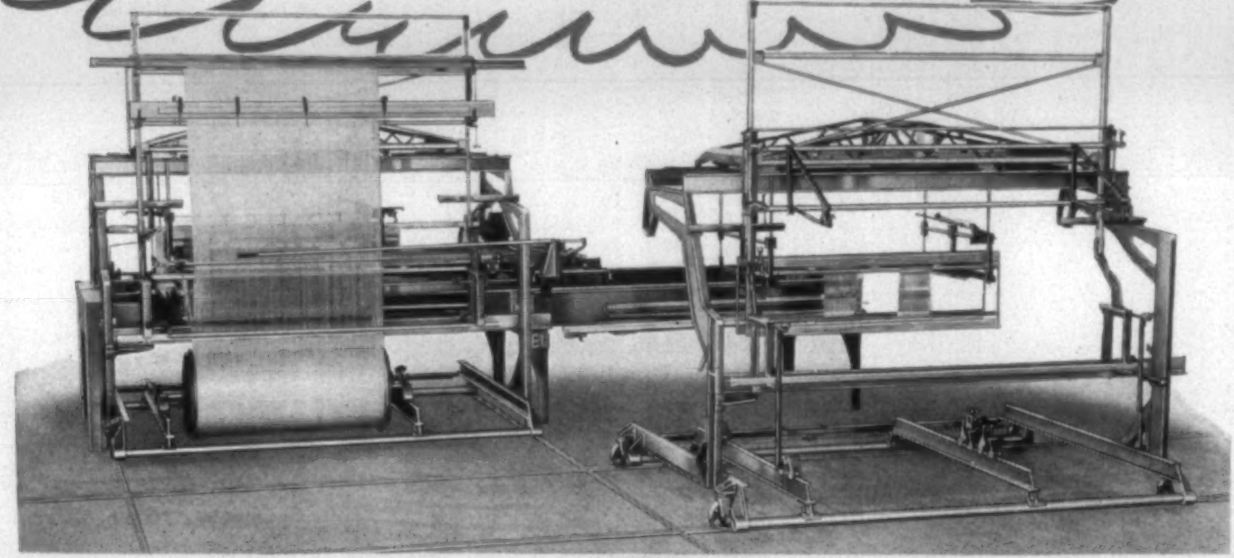
ATLANTA • BALTIMORE • BOSTON • CHARLOTTE • CHICAGO • CLEVELAND • DALLAS • LOS ANGELES • NEW ORLEANS • PHILADELPHIA • ST. LOUIS • SAN FRANCISCO • TORONTO

BARBER COLMAN

FASTER REPLACEMENT

STRAIGHTER WARPS

LOWER COSTS



BARBER-COLMAN MODEL G *Warp Drawing Machine*

The Model "G" Barber-Colman Warp Drawing Machine is designed to be used in a wide variety of weaving mills and is particularly valuable to manufacturers of dobby fabrics, shirtings, suitings, and dress goods. This machine is also extremely useful for mills weaving broadcloth, ginghams, fancy rayons and cotton specialties and sheeting. Mills that use up to 20 or 24 harness shafts in the construction of fabrics and 8 or less banks of warp stop motion, where quick change-over in style and pattern is necessary, will find this model the answer to their warp replacement problem.

Field reports show up to 3000 Ends per Hour
Draws warps from 10 to 300 ends per inch
Draws from flat sheet or 1 x 1 lease
Draws from single or double beam, or split sheet
Draws 1 x 1 lease in double beam or split sheet

Warp threads are drawn through drop wires, heddles and reed

IN ONE OPERATION

from any predetermined draft

HARNESS FRAME LENGTHS

Size of Machine	Maximum Overall Length of Harness
48	54"
66	72"
86	92"

MODEL "G" MACHINE CAPACITIES

The Model "G" can be furnished in the following capacities at no difference in cost:
Reed, 20 Harness, 8 Banks of Drop Wires
Reed, 22 Harness, 6 Banks of Drop Wires
Reed, 24 Harness, 4 Banks of Drop Wires
DROP WIRE CAPACITY: 9/32" through 3/4" wide

WILL DRAW

- Cotton Yarns
- Filament Yarns
- Spun Yarns
- Woolens and Worsteds
- Monofilaments

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

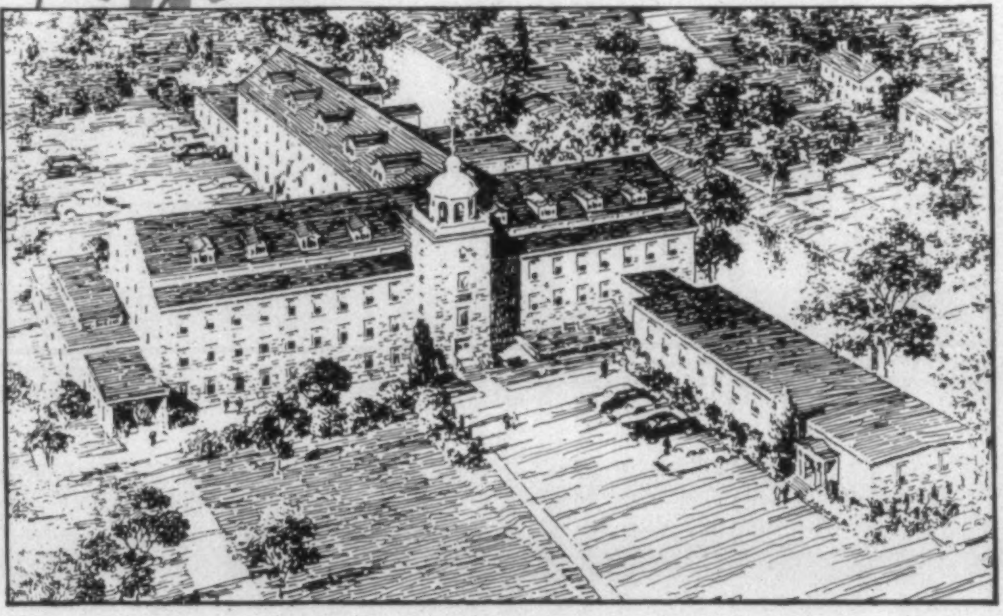
ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

HEADQUARTERS

For men who look beyond tomorrow

In the development of machinery for the Textile Industry, as in American Industry as a whole, progress is guided by men of vision. The ingenuity, skill and perseverance of its research men and development engineers have given form and substance to yesterday's dreams. Too often industry overlooks the importance of constant research, failing to recognize the need for adequate facilities to insure its continued progress. By providing new and expanded research facilities, Whitin confidently faces the future.



New Home for Whitin Research and Development

This fine, old stone mill adjacent to our main plant has been completely renovated. Lighting, humidity and temperature control devices of the most modern type provide ideal mill operating conditions.

More than fifty of Whitin's latest model machines are on display in an area approximating 25,000 square feet. In addition, a library, sales conference rooms and a completely equipped testing laboratory are included. Facilities are available for testing not only fibers of all kinds, but also the machinery on which they are processed.

An equal amount of space has been provided for the Research and Development Engineering Division and Experimental Machine Shop. The entire building is manned by a staff of textile technicians combining their skills for one purpose—to maintain Whitin leadership in making textile machinery better.

A complete description of this new Division will be available in the March - April issue of the Whitin Review.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

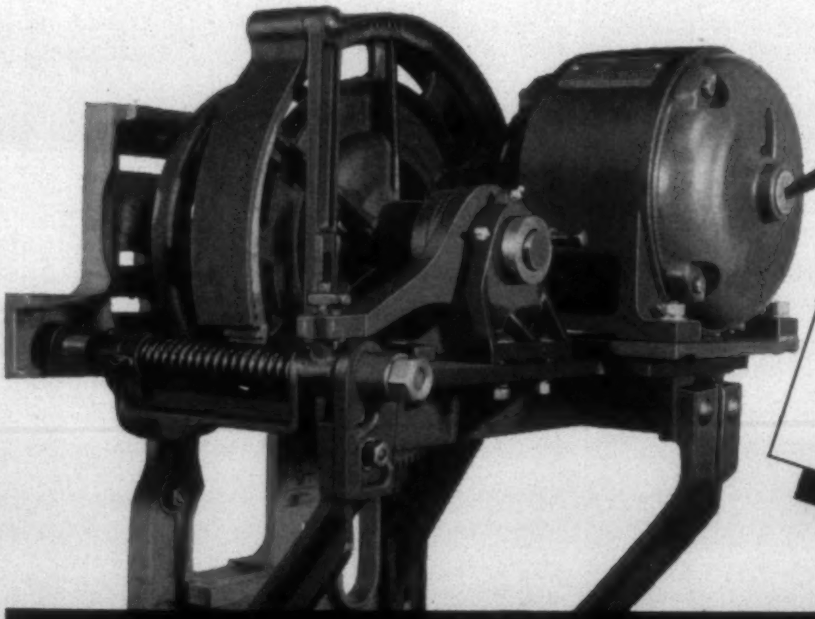
HERE'S HOW
BAHAN MOTOR DRIVES
help cut costs and improve production!

DESIGNED to provide a highly efficient loom-driving unit that operates shift after shift with smooth, dependable precision.

MOUNTED directly to the loomside, Bahan Motor Drives keep a rigid alignment with the crankshaft and operate with less vibration and friction.

ASSEMBLED before shipment, each unit comes complete and ready for immediate installation.

INSTALLED with ease on all model looms. Tapered bushing eliminates danger of bending crankshaft. Ideal for use with new NEMA frame motors.



SPECIFICATIONS BAHAN MODEL "C" MOTOR DRIVE

- Two ball thrust bearings
- Tapered bushing
- Grease-lubricated bearings
- Complete with hand wheel (or brake wheel)
- Choice of 8-pitch or 10-pitch gears
- Complete with new heavy-duty motor

BAHAN TEXTILE MACHINERY CO., Inc.

DESIGNERS AND MANUFACTURERS OF RELIABLE TEXTILE MACHINERY FOR OVER 30 YEARS

Greenville, South Carolina

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Truman forces are appalled at the uproar throughout the country that has followed MacArthur's removal. Never before has such a stream of letters and telegrams poured in on Congress—more than nine in ten of them highly critical of Truman and his action. On some days, as MacArthur testified, the flood was estimated by postal officials at 300,000 or more a day. Every phase of the Truman Administration is under attack.

Seasoned observers see evidence in the nationwide uprising that the American people are humiliated and shamed by the Truman scandals. MacArthur is merely a symbol of decency and cleanliness in public life to which people responded by expressing revulsion over the conditions within the Administration.

Truman gave evidence at his press conferences of being stunned at the strength and violence of the country's uprising. He said that, ultimately, time will tell and vindicate his position. But his reference was to MacArthur's removal, and not to scandals around him.

Fate of R.F.C. still hangs in the balance, although Symington has become its one-man chieftain. Republicans on appropriation committees are insisting it be liquidated because "it is submerged in support of risky business," and has made loans of taxpayers' money—to snake farms, bowling alleys and the like—not in the public interest.

Testimony brought out in the last stages of the Fulbright hearings demonstrated that "influence peddling" in R.F.C. loans has tied in directly with the White House. Evidence is that perhaps 90 per cent of the loans made have been granted under political pressure and the approval of key figures close to Truman.

The grant of $60 billion in new defense funds, which Truman is asking, will have a terrific impact on the country's economy, in the view of fiscal experts. The proposal is exerting renewed pressure for passage of Truman's tax increases under plea that military spending will set off a new wave of inflation.

Mobilizer Chief Wilson has been pushed aside in manpower and wage questions as a result of the sniping and power-grabbing of the union bosses. Truman is moving to closely confine Wilson's function to production of war materials, and to give a free hand to the new Labor Stabilization Board, top-heavy with union spokesmen.

First action of Truman's new wage board in prospect will be the scrapping of the formula of ten per cent wage increases since January, 1950. The new formula will call for 15 per cent, probably effective July 1. The ten per cent formula is already being disregarded by Stabilizer Johnston in approving new wage pacts.

Truman forces in the Senate have gained two able allies in Underwood and Moody, who have come in as new senators since January. Both of them rank as ardent Truman adherents. Truman is doing his utmost to win over the known Southern and Republican middle-of-the-roaders.

Drafting for military service is slowing down, with quotas for the next two months cut almost in half. But the reduction is temporary, and does not mean exemption from service later. Sudden reversals in Korea could cause a sharp increase in the military call.

The consumers' price index is being surrounded by new safeguards to assure the integrity of its figures. Wage rates of about three million workers and their employers are geared to cost-of-living clauses in wage pacts, with a huge stake in the up-and-down changes in a three-months period.

Just a little upward push in the index in a three-month period, amounting to 1.14 points, could add as much as $100,000 a week to wage costs of large industries. The years of 1935-39 are the base period of 100, with about 45 economists assembling the basic data.

The Joint Chiefs of Staff will get a hard going-over at the hands of Congress within the next few weeks. Claim is that they have become a mere propaganda agency for Truman political ends, and that military reports are being distorted and slanted in passing through the White House.

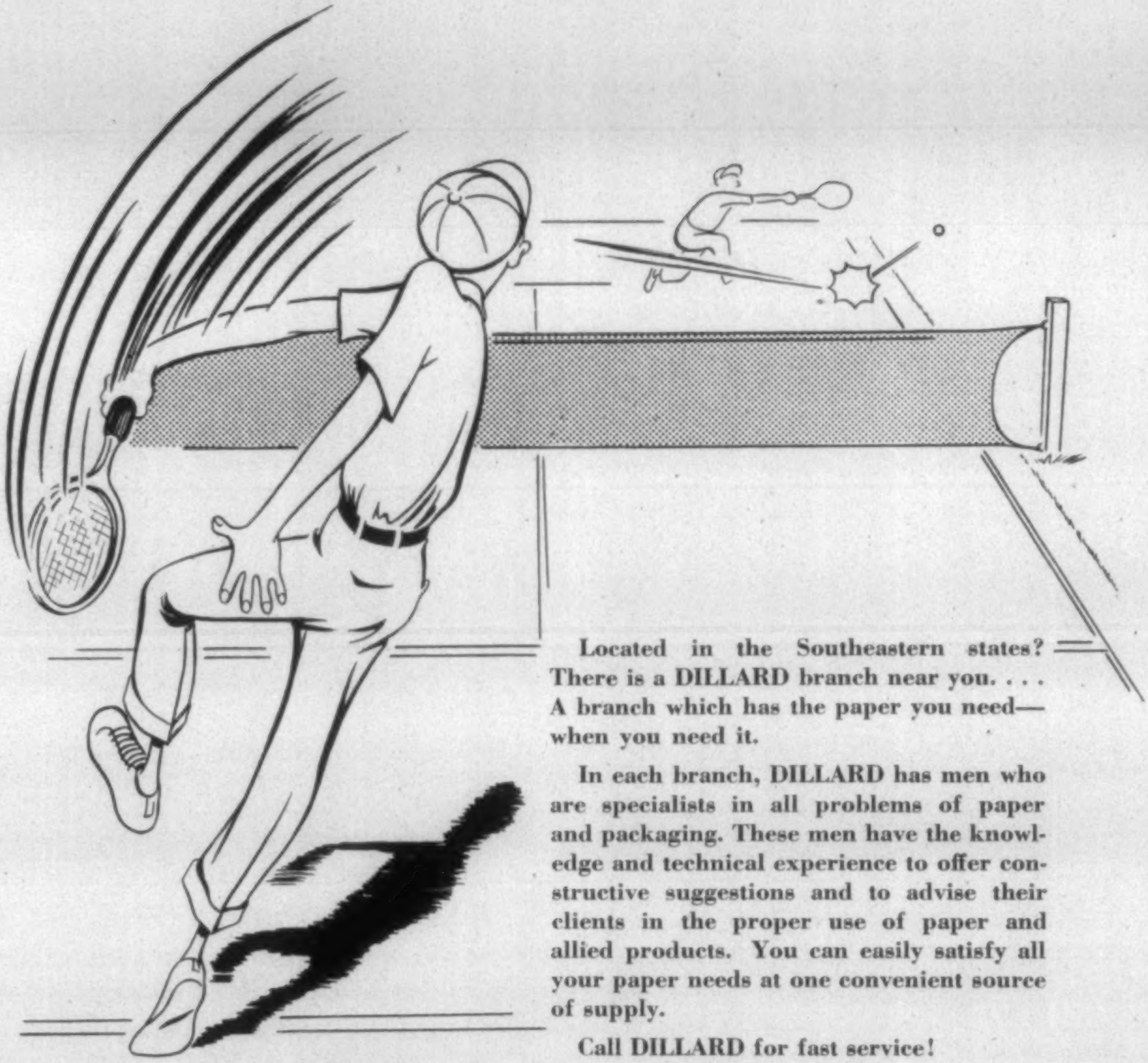
Acheson has become, perhaps, the Administration's greatest political liability, with demands growing for his ouster. He's under constant attack in Congress, and is described as the real top power in this Administration. He's making most of the big policy decisions.

Kefauver's crime report is a catch-all for enumerating evident defects in law enforcement against organized crime. But it is wholly silent on such things as ballot box stuffing and stealing ballot boxes in Kansas City. And it scarcely mentions big campaign contributions by gambling and racketeering rings.

Economy-minded House members have lopped off 96 per cent of Truman's requested $25 million next year for his personal emergency fund. It is the most severe slap that has been given to continued big spending for civilian and non-military needs while military and armament costs are soaring skyward.

Lengthy and heated hearings are in prospect next month when the defense production and price stabilization act is taken up for extension. The act expires June 30. The whole proposition of price control is coming under scrutiny.

★ FAST SERVICE...



Located in the Southeastern states? There is a DILLARD branch near you. . . . A branch which has the paper you need—when you need it.

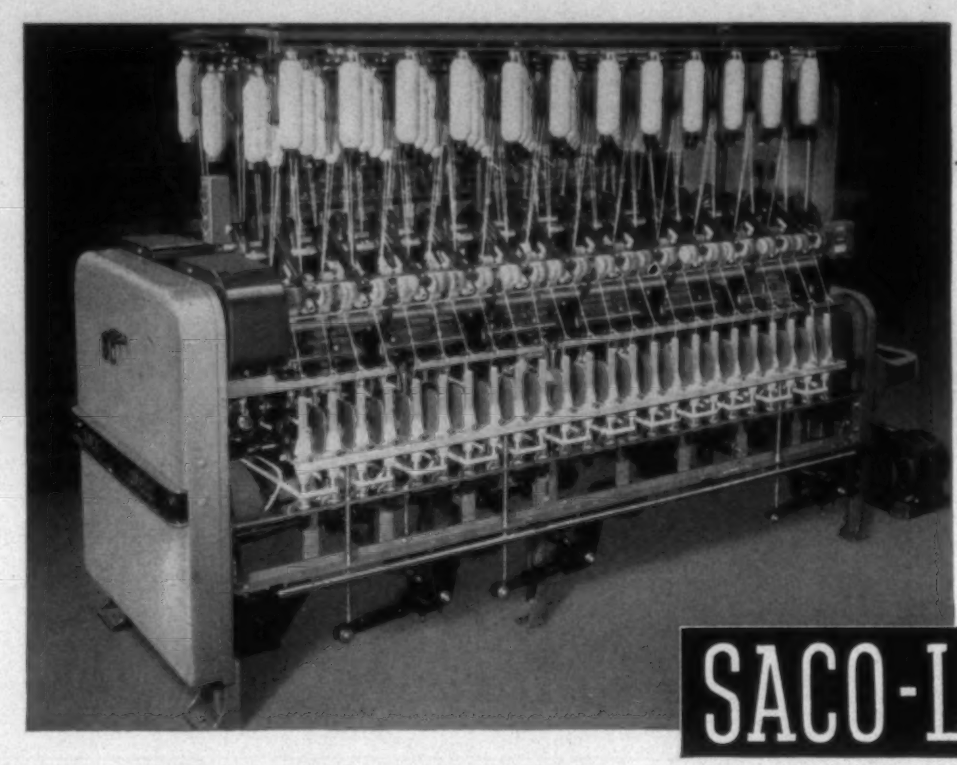
In each branch, DILLARD has men who are specialists in all problems of paper and packaging. These men have the knowledge and technical experience to offer constructive suggestions and to advise their clients in the proper use of paper and allied products. You can easily satisfy all your paper needs at one convenient source of supply.

Call DILLARD for fast service!

Dillard PAPER COMPANY

GREENSBORO • CHARLOTTE • GREENVILLE • COLUMBIA
ROANOKE • BRISTOL • WILMINGTON • MACON • KNOXVILLE

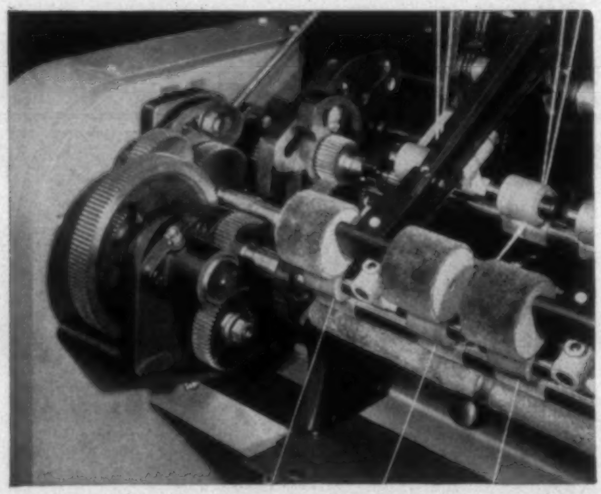
1926 Twenty-five Years of Service and Experience 1951



SACO-LOWELL

WORSTED SYSTEM

for Worsted and Long Staple Synthetics



Gear cover raised to show the draft gearing, and with drafting rolls down in operating position.

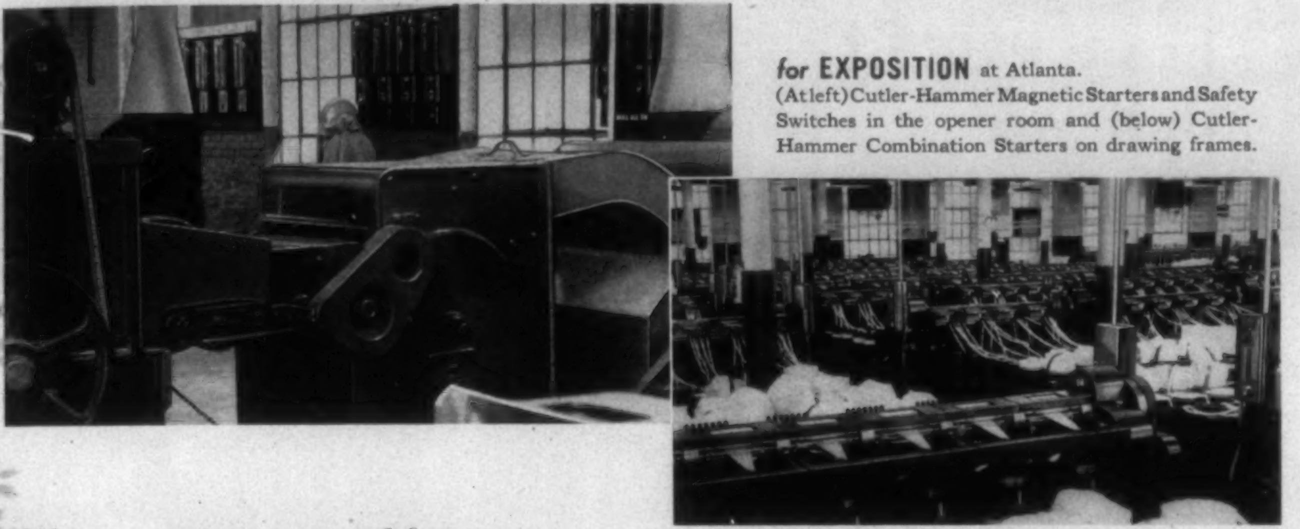
SACO-LOWELL's SS-4 Spinning Drafting System is a **completely new method** of drafting wools up to 6″ in staple length, and longer. Heavy, cumbersome, complicated equipment heretofore seen in the average worsted yarn spinning mill is being replaced with a series of single machines, free from intricate and sensitive sub-assemblies which are hard for the operative to understand, difficult to adjust, and expensive to maintain.

A COMPLETE TECHNICAL DESCRIPTION of this new system is given in a 16-page brochure. You are invited to write for the "Saco-Lowell System for WORSTED SPINNING."

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD, MAINE *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA

CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY



for **EXPOSITION** at Atlanta.
(At left) Cutler-Hammer Magnetic Starters and Safety Switches in the opener room and (below) Cutler-Hammer Combination Starters on drawing frames.

Where many machines must be made to work as one

When total production depends on the coordination of many machines in many departments as in the textile field, the selection of the Motor Control that stands guard over and guides these machines becomes of paramount importance. And it is of paramount importance to every conscientious textile executive what the Cutler-Hammer 59-year specialization in motor control can put in his hands by way of *immediate* advantages and the far more crucial advantage of *long-time dependability*. See what experience in the plants of the nation as the nation's number one motor control specialists can mean to your production. Specify Cutler-Hammer Motor Control in your very next purchase. CUTLER-HAMMER, Inc., 1455 St. Paul Avenue, Milwaukee 1, Wis.

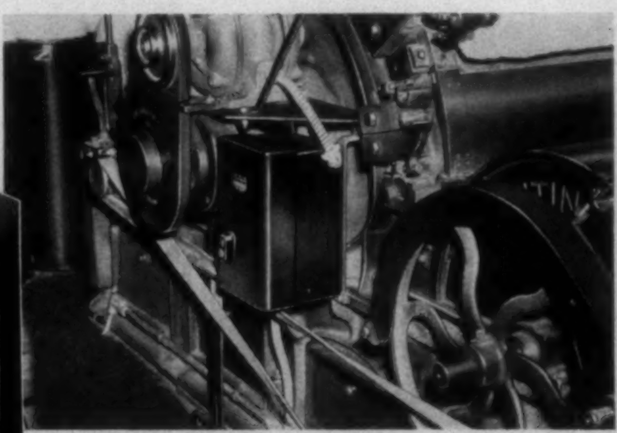
for **WAUMBEC** at Manchester, N. H.
Cutler-Hammer primary resistance type Starters on spinning frames.

CUTLER-HAMMER CARD CONTROLLER

With integral drum type reverse switch

Here in one self-contained unit is all the control needed for a card . . . convenient pushbutton starting and stopping *plus* an integral reverse switch for cleaning and grinding. Card cannot be reversed accidentally or by any unauthorized person when controller case is padlocked. Easier to install. Easier and safer to use. Felt-gasketed against lint. Famous Cutler-Hammer Eutectic Element Overload Protection specially arranged to provide long starting time (required for cards) without loss of normal operating protection.

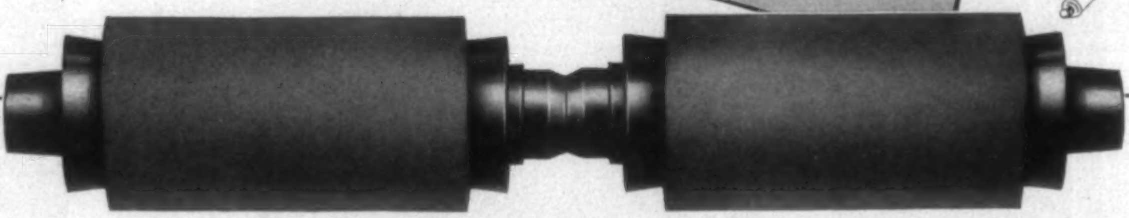
CUTLER-HAMMER
MOTOR CONTROL
C-H



for a **NORTH CAROLINA** mill.
Specially designed Cutler-Hammer Controller for individual card drives.

OBSOLESCENCE

has a PRICE TAG that you CAN'T AFFORD TO PAY



SACO-LOWELL-TORRINGTON

S-L-T NEEDLE BEARING TOP ROLL

FOR ROVING AND SPINNING

. . . the MODERN Top Roll, 550,000 already installed

★ **IT SAVES TIME**	needs oiling only once a year! roll picking practically eliminated.
★ **IT SAVES OIL**	no spilling on floor.
★ **IT SAVES YARN**	no spoilage from black oil.

Every mill should try out at least one frame of these S-L-T Top Rolls. We have a special plan which makes this possible on a very economical basis.

S-L-T- TOP ROLLS are manufactured by THE TORRINGTON COMPANY, Torrington, Conn., and are available exclusively through

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD, MAINE *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA

highest possible light fastness for Nylon

DU PONT NEUTRACYL DYES—neutral dyeing colors—have been specifically developed to give the highest possible light and wet fastness on both filament and staple nylon. They can be applied in the same short time cycle as acid dyes.

These new dyes, such as Neutracyl Red B, are especially recommended for dyeing nylon staple. Fabrics made from staple dyed with these new colors provide the superior light fastness needed for upholstery materials, outerwear, pile fabrics, suitings, automotive top materials, government fabrics and infants' wear. They are also suitable for dyeing wool, giving similar fastness properties.

For information on the Neutracyl dyes—or for help on any coloring problem — consult our Technical Staff. E. I. du Pont de Nemours & Co. (Inc.), Dyestuffs Division, Wilmington 98, Delaware.

Du Pont Dyestuffs

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

PUT THESE "DRAFT" HORSES TO WORK FOR YOU!

The New DAYCO Cot

"COT O' THE LOT!"

Now! New freedom from ends-down and lap-ups, with the greatly increased fiber repellence of the new Dayco Cot. Man-made of American Rubber, it is specifically compounded for fiber non-attraction. An all-around performer, too—use it run-of-the-mill on cotton, wool, blends or synthetic fibers. And for *life,* you've never seen a cot like it—where mills were getting 60 to 90 days, Daycos upped cot life to 3 and 5 years. No wonder cost-conscious Superintendents call it, "Cot o' the lot!"

Now that down-time and maintenance are more costly than ever you can hold them down with this famous Dayco team. Try them on your frames—they increase yarn uniformity, reduce ends-down and lap-ups, outlast any cots or aprons you've ever used! Write:

DAYTON RUBBER CO., Textile Division, Woodside Bldg., Greenville, S. C.

The Dayco Long Draft Apron
"BEST IN THE LONG DRAFT!"

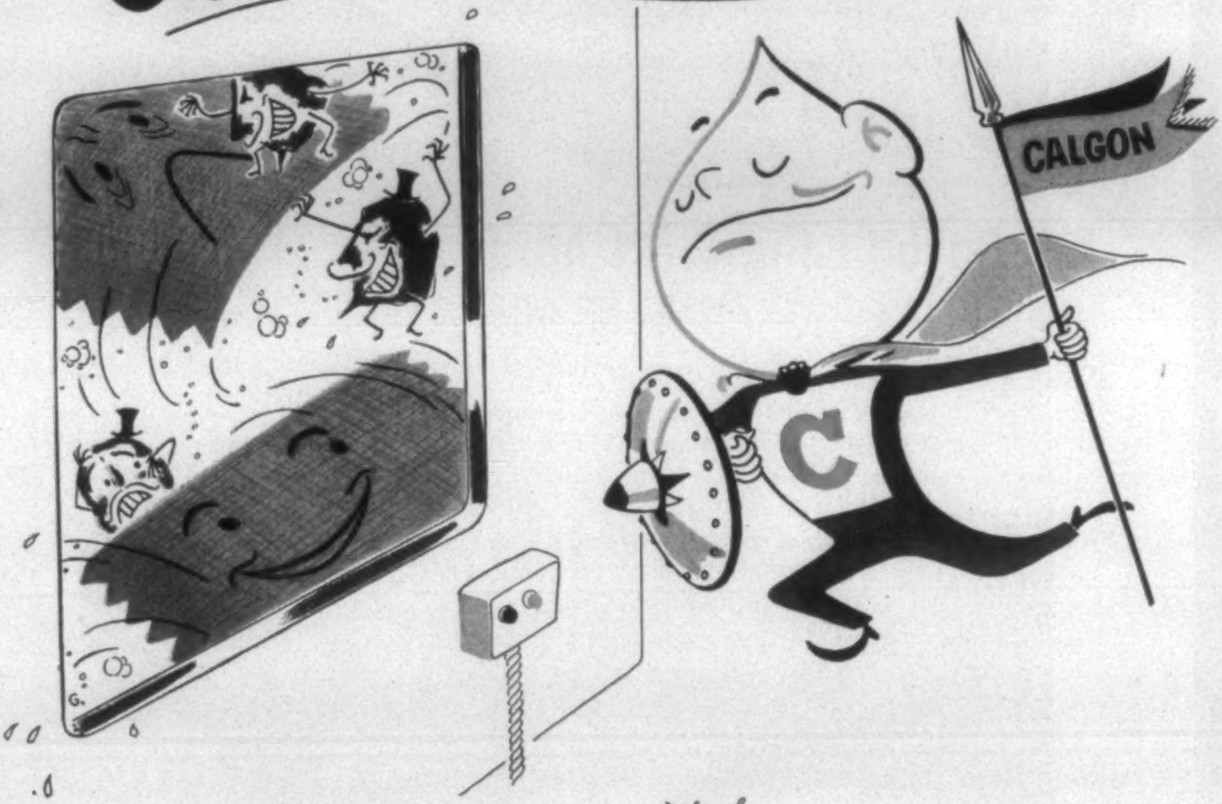
Precision-made of the finest American Rubber, the Dayco Long Draft Apron yields up to 10% more uniform yarn. Caliper it against the best aprons now on your frames. You'll find it excels in uniform thickness, diameter, and width. Dayton's exclusive method of marking for 2-apron systems insures perfect fit regardless of age or type of cradle. You can change apron length by as little as 1/64" in diameter. Says one Overseer: "First apron I ever saw, you wouldn't lose a few when starting up!"

Torrents of cloth bolts pour from the mills, as Dayco and Thorobred textile machinery products help make American women the best dressed in the world!

Dayton Rubber

TEXTILE PRODUCTS FOR [illegible] SPINNING AND WEAVING

"Cal" to the Colors



"I'd like to know what goes on here," thought Cal Gon as he was tossed into the dye tub. "Um-m, salt," he added, "what am I supposed to be doin' in this bluein'?"

Just then he caught sight of a furtive ferrous ion sidling past. "Hey, you!" he shouted, "You just don't look good to me—definitely off color. Just slip into my sequestering sack." Then he chuckled as a horrible pun struck him. "Sort of an ironic situation, ain't it my dull friend?"

Then Cal's brothers—a methodical mob of lanky ions of complex phosphate—advanced across a plain of textile fabric, ankle deep in a sticky mud of lime soap. They shoveled this up, hauled out the calcium and magnesium ions, tossed them into the sack, and pushed cooperative sodium ions into the vacancies.

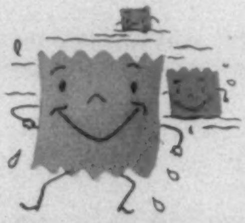
With the evidence of rejuvenated soap bubbles floating gracefully on the surface and the multitude of bright blue molecules of dye rushing to complete their duties in a more peaceful environment, Cal sensed that he was part of a tremendous undertaking.

Wandering off with his sequestered iron and calcium ions all tied up, Cal poked his head thru the surface of the dye just in time to hear the foreman and super say:

"Look at that clear foam riding on the surface—remember the junk that used to collect around the tub? Boy, that Calgon* you suggested is great stuff."

"Iron doesn't seem to bother you any more, does it? For a long time I haven't seen any of those dull shades we used to get and our finished rejects are lower."

Cal swung his sequestering sack of calcium ions over the other shoulder—"So that's the score is it? Why you miserable little fugitives from a bed of limestone. I'll keep you tied up till I get out of here, even if I hydrate for it."



The fabric was coming out of the tub now, a beautiful uniform shade of blue. Cal thrilled with pride as the cold wash water forced him down the drain still clutching the sack of evil ions safely sequestered.

*CALGON *is the registered trade mark of Calgon, Inc. for its vitreous phosphate products.*

HAGAN
HALL
BUROMIN
CALGON

calgon, inc.

A SUBSIDIARY OF
HAGAN CORPORATION

HAGAN BUILDING
PITTSBURGH 30, PA.

From 5

ATLANTA

ASHEVILLE

CHARLOTTE

GASTONIA

HIGH POINT

CONVENIENT WAREHOUSES

. . . come the products of some of the outstanding paper mills in the country.

Since 1906, Henley has been ever alert to the diversity of its customers' needs, and the importance of anticipating their routine, emergency or special job requirements. Today, with increased orders carrying rigid government specifications and a general condition of short supply, Henley is able to call on the resources and abilities of a long list of outstanding mills.

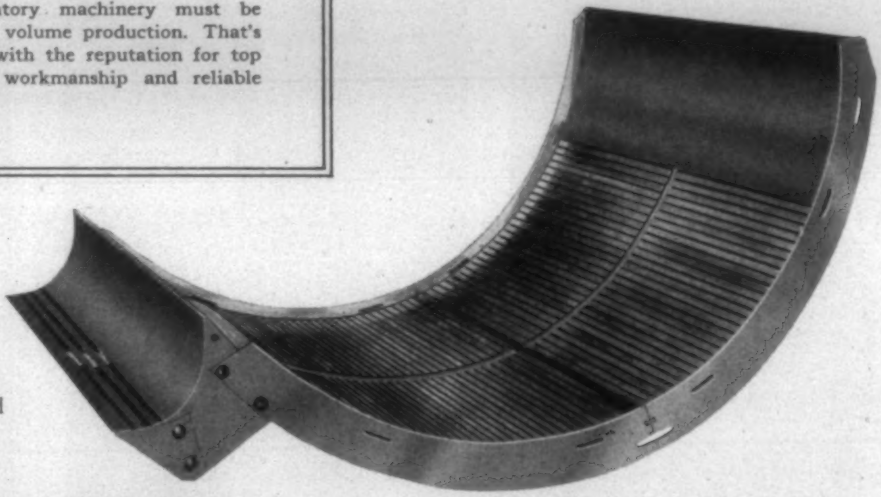
These *dependable* mill connections, plus convenient warehousing of balanced stocks, and 45 years experience in solving all types of customer packaging problems are reasons . . . why buyers of industrial, printing and specialty papers look on Henley today as . . . HEADQUARTERS FOR SERVICE.

HENLEY
PAPER COMPANY

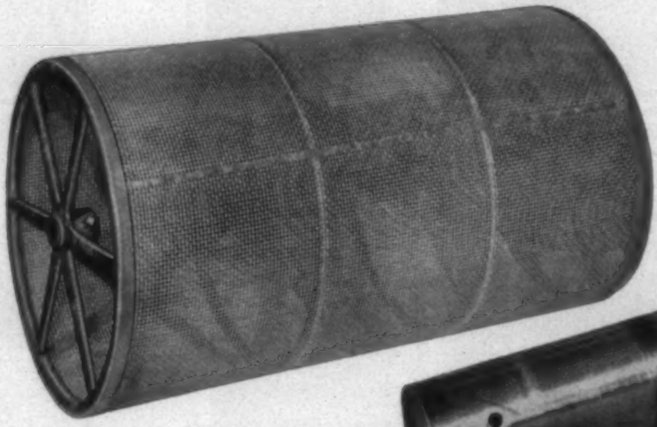
HIGH POINT • CHARLOTTE • GASTONIA • ASHEVILLE
SOMERVILLE-SEYBOLD DIVISION, ATLANTA

MORE PRODUCTION AT LOWER COSTS with GASTONIA TEXTILE SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.

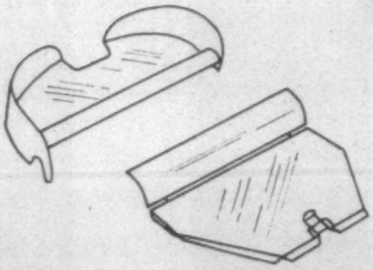


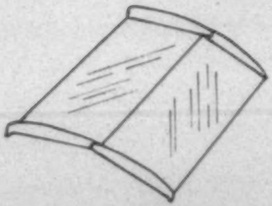
Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.

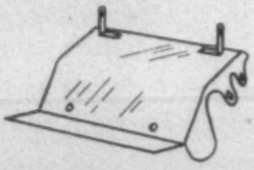


Picker, Condenser and Waste Machine Screens of maximum strength and durability are constructed of the best materials available.

New and rebuilt Cylinders are dynamically balanced to reduce vibration to an absolute minimum.







Years of practical experience —the finest of raw materials —and precision machinery in the hands of skilled workmen go into every product.

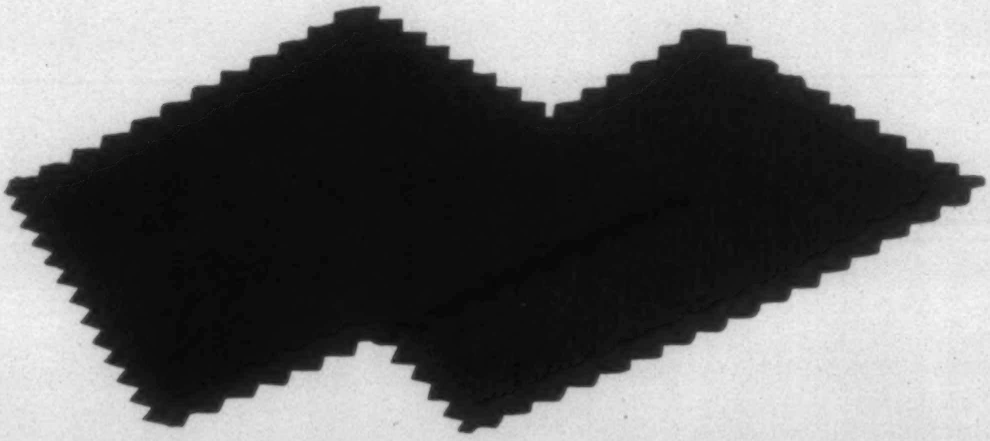
GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA
A SHEET METAL WORKS SERVING TEXTILE MILLS

Expanded Production
in anticipation of your greater needs for

NATIONAL CARBANTHRENE OLIVE T PASTE

the basic color for the new military shades

OLIVE GREEN #107 (COTTON) **and OLIVE GREEN #108** (WOOL)



Month by month, our deliveries of this essential dye continue to grow . . . thanks to a production program initiated last year.

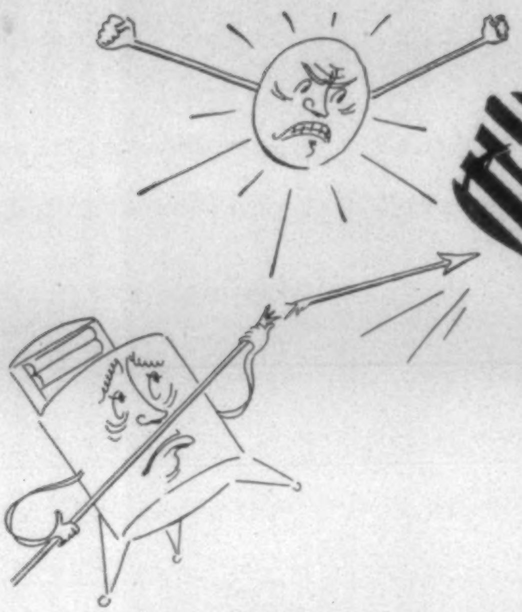
Let us know your defense-order needs just as quickly as possible, so that we can give you traditional National Service on formulas and dyes for military shades.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 140 Peachtree St.	CYPress 2821
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Building	Raymond 7228
Charlotte, 1 N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Elgin 6485



Direct Dyed

but **triple** fast

Not just fast to laundering and perspiration—fast to light, too!

Yes, CUPROFIX colors and after-treatment give cotton and rayon fabrics such a high degree of fastness *to all three* . . . that direct dyeing now compares favorably with more expensive vat dyeing!

But *only* with CUPROFIX can you expect direct-dyed fabrics to have satisfactory fastness to *sunlight.* Only CUPROFIX gives you triple fastness in direct dyeing.

Economy—and Quality, too!

You save many dollars when you use direct dyes. For pennies more—relatively—you can make the big saving *without* sacrificing quality . . . and compete successfully with many vat-dyed fabrics.

Get acquainted with CUPROFIX now—write us for Booklet U. S. 125. SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N.Y.

Label Resin-Treated Garments "WASHABLE"

Adding CUPROFIX to the resin bath increases fastness to washing sufficiently to permit labeling garments "washable" instead of just "dry cleanable". It also:

materially increases efficiency of the usual resin treatment

eliminates in many cases the effect of resin on light fastness.

SANDOZ CHEMICAL WORKS, Inc.
61 Van Dam Street, New York 13, N. Y. Application laboratories and stocks at Boston, Philadelphia, Charlotte, Los Angeles, Toronto. Other branches at Providence, Paterson, Chicago.

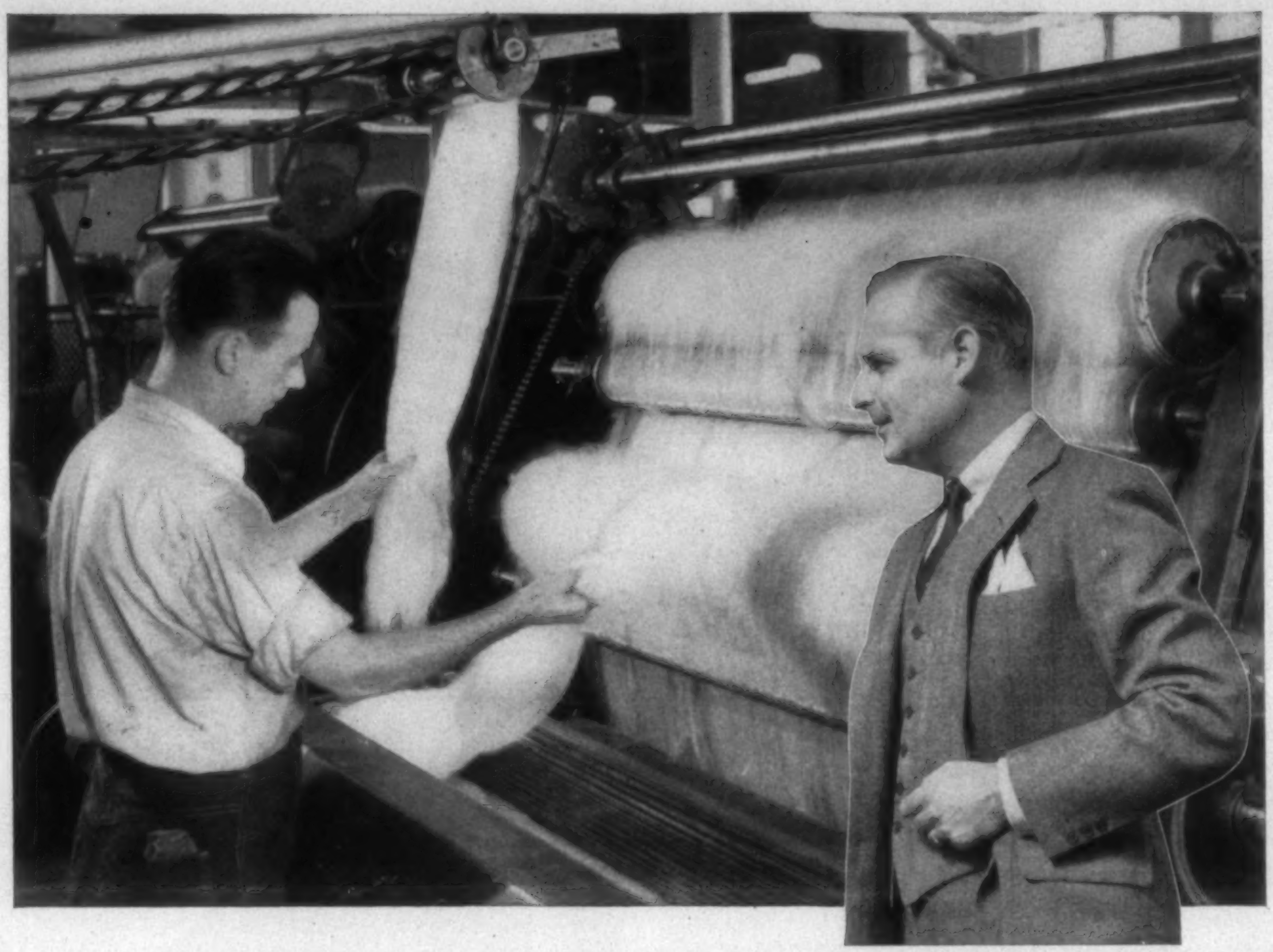
Fast to Light · Wash · Perspiration
Pressing · Cleaning

CUPROFIX

BY SANDOZ

SANDOZ *thinks ahead with textiles*

SANDOZ



You've Taught Us a Lot in 84 years...

From our daily contacts with you and hundreds of other mill men, we have accumulated an excellent understanding of your problems.

We know that mills welcome assistance that speeds up production, makes tough jobs easier, and increases efficiency.

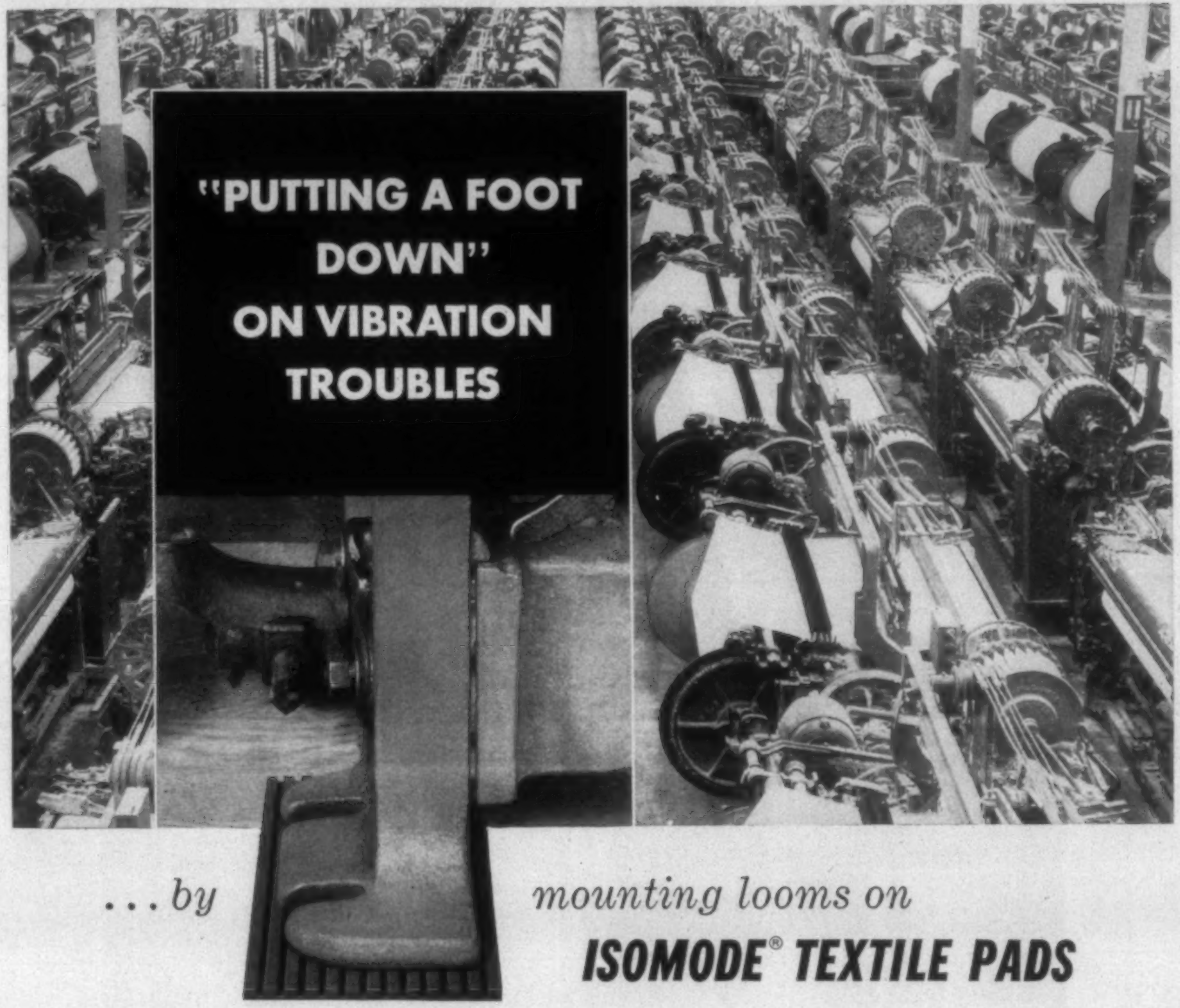
That's why we invite you to talk over your problems with a Howard Brothers representative. Your dealing with him will be confidential in every way . . . and of course, there is no obligation on your part.

Contact our nearest plant or branch office now.

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS
Southern Plants: Atlanta, Ga. and Gastonia, N. C.
Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-3

TUFFER
CARD CLOTHING
IMPROVES PRODUCTION ALL ALONG THE LINE

Here's SPRINGS COTTON MILLS...



"PUTTING A FOOT DOWN" ON VIBRATION TROUBLES

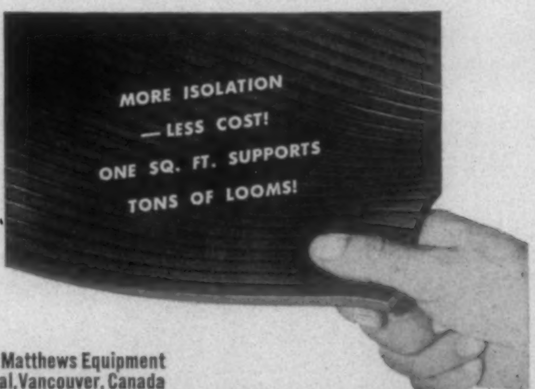
. . . by *mounting looms on*

ISOMODE® TEXTILE PADS

● Everybody knows how alert Springs Cotton Mills is for ways to improve mill operations and increase efficiency. So it's no accident that row after row of looms in their mills are now supported on Isomode* Textile Pads. Their experience showed that vibration control reduced excessive loom maintenance, noise, and disturbances transmitted to floor. Thorough testing and actual installations further proved that Isomode Textile Pads were not only one of the *best* vibration absorbing mountings to use, but also one of the most *economical.*

It's easy to install Isomode Textile Pads. Allowing ⅛ or ¼ inch overlap securely beds down loom legs on this resilient, ribbed, spring-like pad *without bolting!* You thereby end strains on looms, correct the effect of uneven floors—which helps to keep looms on the job longer.

Discover how little it will cost you to install Isomode Textile Pads and gain the substantial benefits resulting from vibration control. Write for data and prices. **Trade Mark Reg. U. S. Pat. Off.*

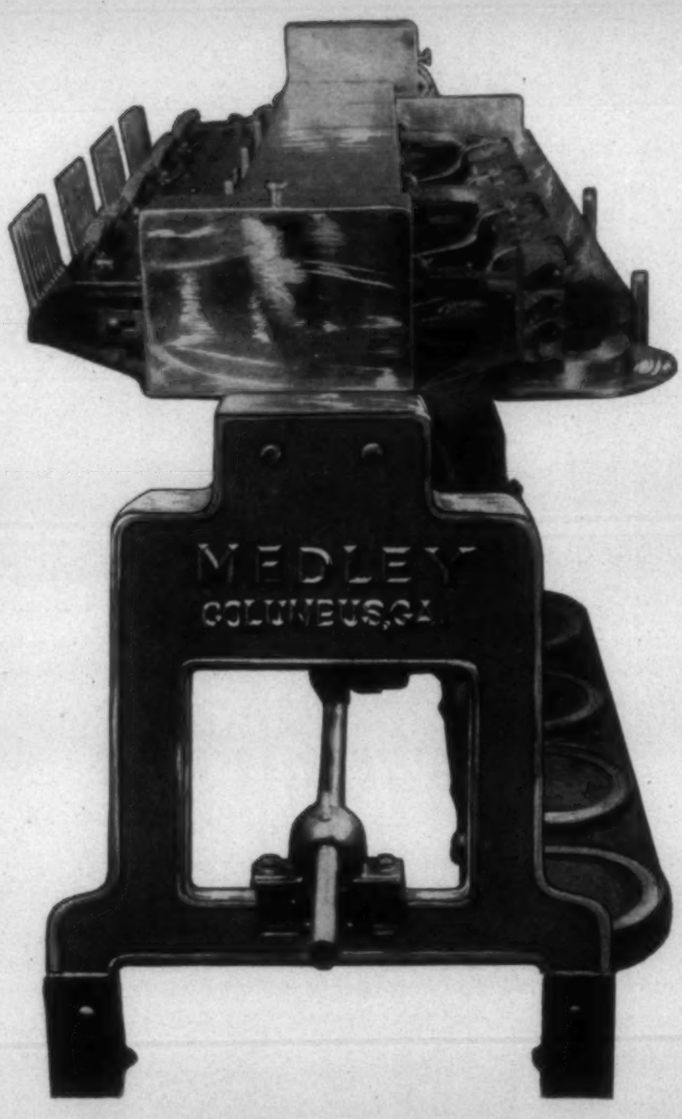


THE MB MANUFACTURING COMPANY, Inc.
1082 State Street, New Haven 11, Conn.

Distributed by: Oliver D. Landis Co., Charlotte, N. C. • Standard Mill Supply, New York 1, N.Y. • Matthews Equipment Co., Providence, R.I. • R. B. Dorman, Atlanta, Ga. • Upton, Bradeen & James, Ltd., Toronto, Montreal, Vancouver, Canada

THE KEY POINT

for Quality Control



Quality is either made or irrevocably lost at the drawing frame. Medley's Identical Precision Machined Sealed Ball Bearing Rolls will insure you for years against loss of quality at this vital point.

●

At your request we will be glad to send a competent technician to your plant to discuss your drawing problems.

MEDLEY MANUFACTURING COMPANY, LTD.

HOME OFFICE

400 THIRTY-SECOND STREET •-• COLUMBUS, GEORGIA

"Tycol Alweave cuts spindle drag... reduces thread breakage... jumps production"

Right! The stability and lubricating value of Tycol Alweave Spindle Oils assure minimum wear and low power consumption, all helping to step up production by reducing drag and thread breakage.

A wide range of Tycol Alweave Textile Oils is specially designed in both mineral and compounded grades to cut costs in other processes in your mill.

For further information about Tycol Alweave Textile Oils, write, wire or phone your nearest Tide Water Associated office today.

TYCOL

INDUSTRIAL LUBRICANTS

Boston • Charlotte, N. C. • Pittsburgh
Philadelphia • Chicago • Detroit
Tulsa • Cleveland • San Francisco

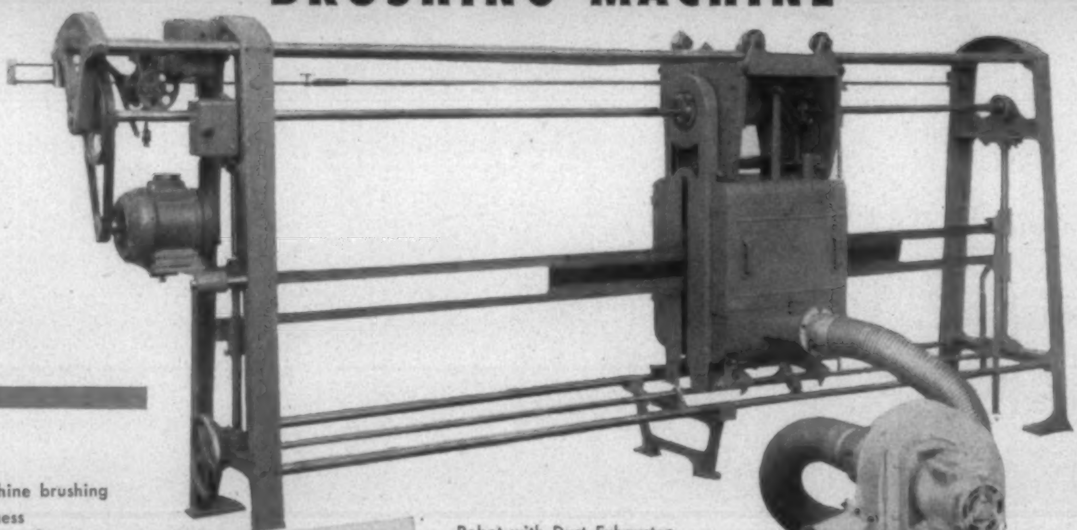
TIDE WATER
ASSOCIATED
OIL COMPANY
17 BATTERY PLACE · NEW YORK 4, N. Y.

SEND FOR A FREE COPY OF "TIDE WATER ASSOCIATED LUBRICANIA"

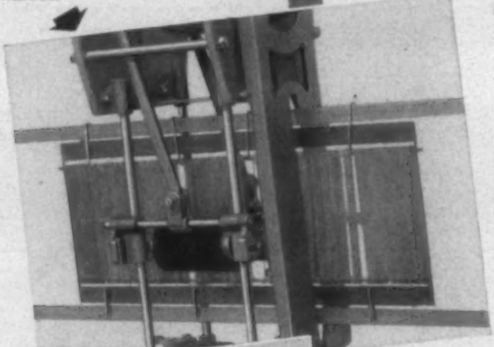
Here's the Machine You've been Waiting for

"ROBOT"

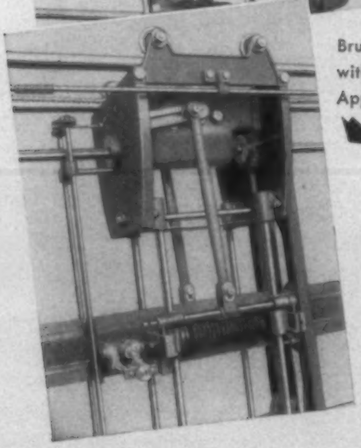
AUTOMATIC REED AND HEDDLE BRUSHING MACHINE



Robot with Dust Exhauster



Machine brushing harness



Brush Carriage with Reed Polishing Apparatus

- **Cleans, hones and polishes REEDS**
- **Cleans and polishes HEDDLES in or out of the harness frame**
- **Quickly removes rust, size and dirt**
- **Fully automatic operation**

The finest, most efficient, most versatile REED *and* HEDDLE cleaning machine on the market today.

Write today for descriptive literature and information

H. J. THEILER CORPORATION • Whitinsville, Mass.

"Slide-tex" **PRODUCTS FOR THE TEXTILE INDUSTRY**

The Cocker High Speed Spindle Driven Warper

A battery of Cocker Spindle Driven Warpers in a Southern Mill.

The Cocker High Speed Spindle Driven Warper is equipped with either vertical type or horizontal type creel.

An exclusive feature on this machine is the electronic relay stop motion, patented by Deering Milliken Research Trust and manufactured by Cocker.

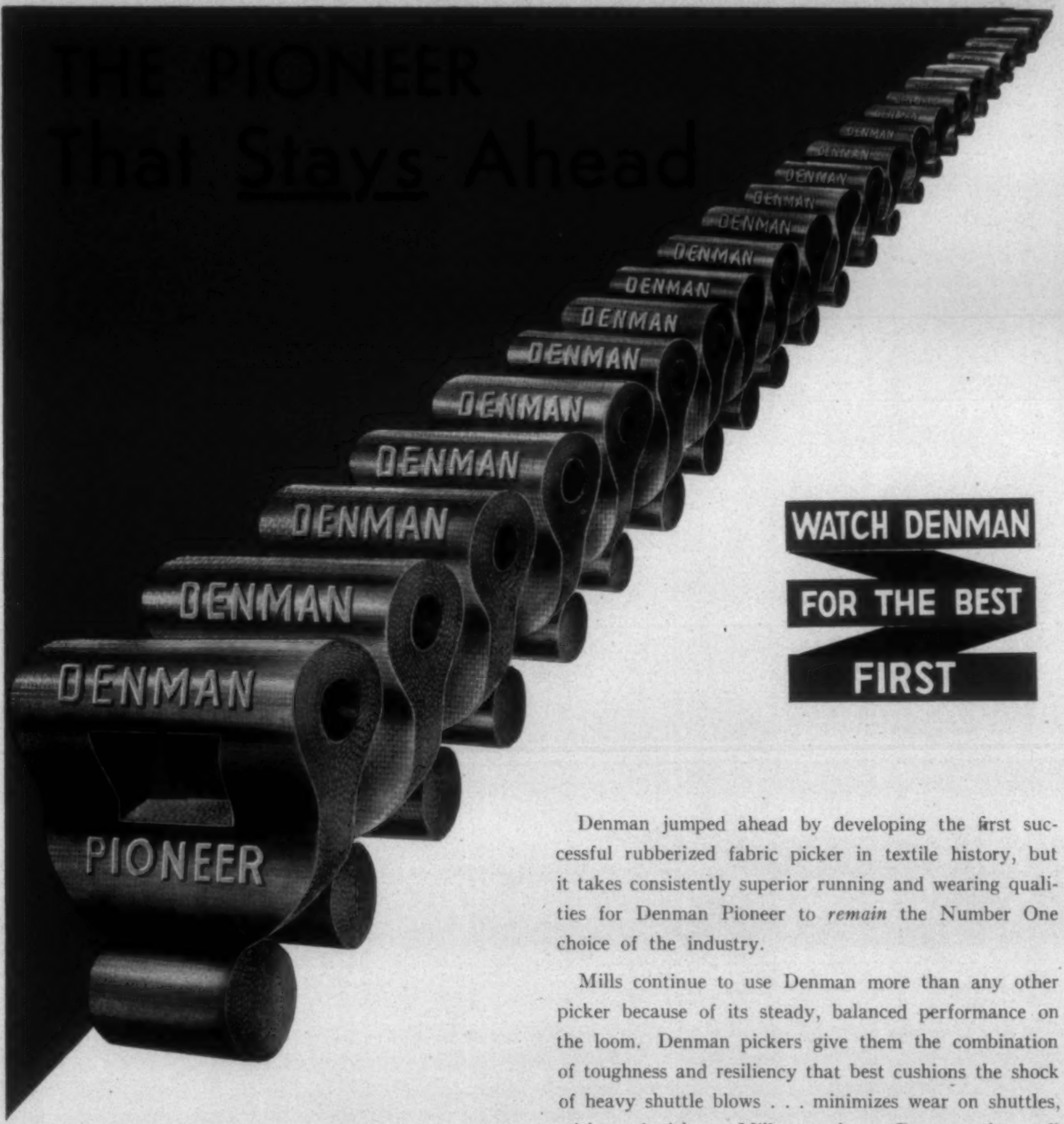
Other equipment on this warper includes electrical eyeboard stop motion, magnetic brakes, press roll, electric beam doffing, predetermining counter clock, electric speed indicator, combs, and push button controls. Write or wire for full information.

THE LEADER AROUND THE WORLD

COCKER Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

THE PIONEER That Stays Ahead



WATCH DENMAN
FOR THE BEST
FIRST

Denman jumped ahead by developing the first successful rubberized fabric picker in textile history, but it takes consistently superior running and wearing qualities for Denman Pioneer to *remain* the Number One choice of the industry.

Mills continue to use Denman more than any other picker because of its steady, balanced performance on the loom. Denman pickers give them the combination of toughness and resiliency that best cushions the shock of heavy shuttle blows . . . minimizes wear on shuttles, sticks and pickers. Mill men choose Denman above all other pickers for

Lowest Cost Per Loom Per Year

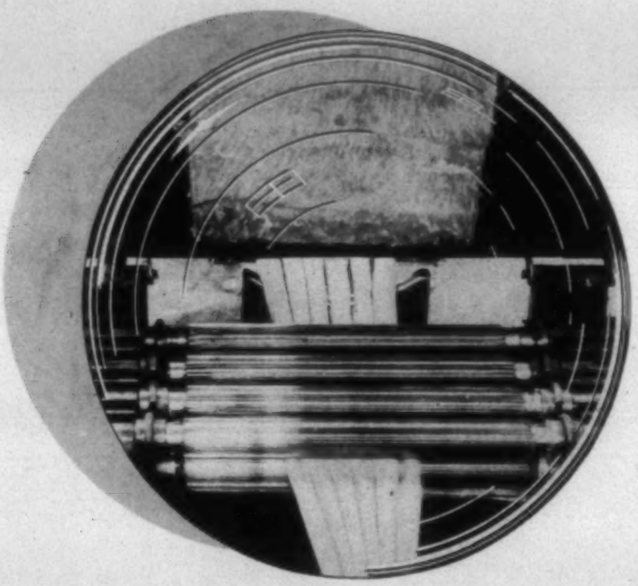
Made by
DENMAN
Tire and Rubber Co.

Exclusive Sales Representative

The TERRELL MACHINE CO., *Inc.*

CHARLOTTE, N. C.

How Ideal Drawing Heads* Conserve Metal, Labor, Power, Space, and Increase Production



When your drawing heads wear out, it will be profitable . . . and patriotic, too . . . to investigate Ideal Drawing Rolls before you make repairs. They require less critical metal . . . less labor to operate and maintain . . . less power to run . . . less space—yet they enable you to increase your production at the same time. Cost less, too.

Less Metal:

One mill using Ideal High Speed Drawing Rolls is now producing 60,000 lbs. more per week from 256 heads than they did from 512 heads with conventional rolls. Another is producing as much from 22 rolls as they formerly did with 57. Such figures are commonplace. You need far fewer Ideal Rolls than you would conventional rolls, thus releasing the extra frames for resale at a profit—and saving metal as well. And each individual Ideal Head requires less metal than does a conventional roll.

Less Labor:

Ball bearings, hardened and ground flutes, perfect and permanent alignment at the same time, make frames with Ideal Heads easy to tend. The reduced number of frames also requires fewer operators. Frequent taking down, cleaning, reconditioning, scouring, removing burrs, and constant oiling is no longer needed. You save on scarce labor when you repair with Ideal Drawing Rolls.

Less Power:

Ball bearing construction, perfect alignment, and smoother operation require less power per frame—and there are fewer frames to run.

Less Space:

Fewer drawing frames give you space for additional cards, roving frames, spinning frames, etc.

Increased Production:

The only production time lost with Ideal Drawing Rolls is for doffing. Ideal gives 85% production compared to conventional 65%. Higher speed, less down-time, and the extra space which can be used for additional cards, etc., enable you to increase your production. You also get a bonus in quality—greater breaking strength and almost perfect evenness.

When your drawing heads wear out, be thrifty and patriotic, too; get Ideal Ball Bearing High Speed Drawing Rolls to take their place.

Ideal Industries, Inc.
Bessemer City, N. C.

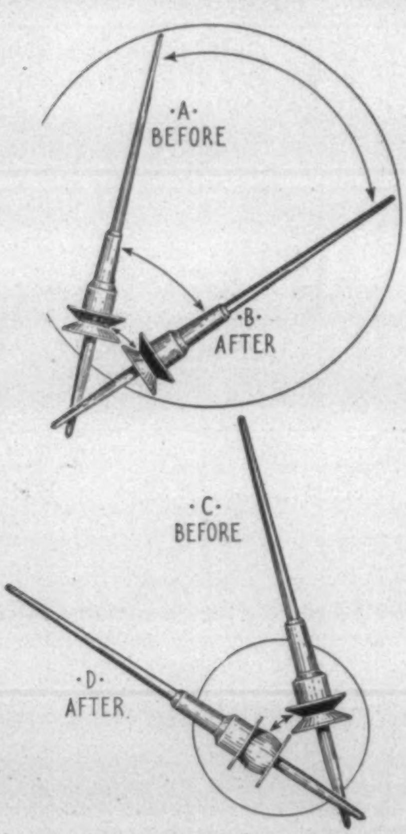
*Patented

AS GOOD as new!

worn spindles reconditioned by master technicians!

It takes what GOSSETT-MASON has plenty of . . . know-how, equipment and skilled technicians . . . . to repair and recondition spindles. The cost is only a fraction of complete spindle replacement. Give us a call. We will gladly and promptly give you a cost estimate.

look what we do to spindles!



Sketch A. This spindle is badly worn. Note the wornout top, acorn and drive . . . Now look at spindle (B) . . . the same spindle reconditioned by GOSSETT-MASON master technicians.

Sketch B. The worn top has been cut off and a new piece of spindle steel butt-welded onto spindle blade and the top ground to specified size. We also build up the worn top with hard chrome plate and grind the top to size specified. After retopping blade, if necessary we put on a new whorl (made by GOSSETT-MASON).

Sketch C. This is a conventional band driven spindle. Mill specifications called for a tape driven spindle so, GOSSETT-MASON technicians converted at a fraction of the cost of complete spindle replacement.

Sketch D. We removed the band driven whorl and put on a new GOSSETT-MASON tape driven whorl. Then we arranged the band driven spindle base so that it can be used with tape driven spindle. Takes know-how and equipment plus skilled technicians.

PLEASE NOTE: We manufacture all types of new spindles and bases. Write or telephone us for full particulars and a cost estimate.

GOSSETT-MASON
Incorporated

B. W. GOSSETT, President
E. C. MASON, Sales Manager
D. W. SMITH, N. C.-Va. Representative

GASTONIA · NORTH CAROLINA

WEST FRANKLIN AVENUE • PHONE 5-4661 or 5-0142

Save this 1-STOP check chart of textile chemicals

You will find Warwick research-developed, market-proved textile chemicals in more than 20 major fields of application in the textile industry.

We suggest you use Warwick—one of America's largest chemical research and manufacturing companies built on and devoted to products for this industry—for *all* your chemical needs.

You'll enjoy high standards of performance, you'll be assured perfect compatibility between materials, and you can usually cut inventory, buying and book-keeping costs by using a single leading source.

APPLICATION	NAME	COTTON	RAYON	WOOL	NYLON	SILK	LINEN	CHEMICAL NATURE
ANTI-SLIP	**WEAVE-LOK***		X		X			water-soluble processed natural resin
ANTI-SLIP	**FORMASET* HG**		X	X	X			inorganic polymer semi-durable
COATING								
NON VOLATILE	**PLASTISOL**	TEXTILES, PAPER						vinyl resin dispersions
VOLATILE	**ORGANOSOL**	TEXTILES, PAPER						vinyl resin dispersions
COLOR FIXATIVE	**WARCOFIX***	X	X	X	X	X	X	quarternaryammonium compound
COLORS, DISPERSED	**SUNTONE***	VINYL						pigments dispersed in resinous and chemical plasticizers
COLORS, PAD DYEING	**SUNTONE***	X	X	X	X	X	X	dispersed pigments and resinous binders
COLORS, PRINTING	**SUNTONE***	X	X	X	X	X	X	dispersed pigments and resinous binders
COLORS, PRINTING	**SUNTONE***	PLASTICS						dispersed pigments and resinous binders
FINISHES								
BODYING AGENTS	**SETOLE* AF**	X						aqueous dispersions of thermo-setting resins
CRUSH RESISTANT	**FORMASET* SN**		X					methylolurea type thermo-setting resin
DULLER	**ANTILUSTEROLE***		X		X			aqueous dispersion of inorganic pigments
FIRE RETARDANT	**WARCONYL* A**	X	X					blend of inorganic salts
GLAZING (DURABLE)	**FORMASET* 10-D**	X						dimethylurea-ether polymer
GLAZING (DURABLE)	**FORMASET* SN**		X					methylolurea type thermo-setting resin
MILDEW PROOFING	**KUPRATE***	X	X	X	X	X	X	solubilized copper 8 quinolinolate
MILDEW PROOFING	**G-4 EMULSION-20**	X	X	X	X	X	X	emulsion containing 20% G-4. Compatible with emulsion-type water repellents.
RIBBON FINISH	**SETOLE* D EXTRA**		X					water-soluble alkyd resin
SEWABILITY FINISH	**WARCO* A 221**	X						non-ionic emulsion
SHRINK RESISTANT	**FORMASET* SR**	X	X					ketone aldehyde type thermo-setting resin
SHRINK RESISTANT	**FORMASET* SN**		X					methylolurea type thermo-setting resin
SHRINK RESISTANT	**FORMASET* 10-D**		X					partially polymerized urea-formaldehyde type resin
SHRINK RESISTANT	**FORMASET* C**	X	X	X	X		X	controlled formalizer of fibers—highly wash resistant
SOFTENERS								
ANIONIC	**APPRETOLE***	X	X				X	alkyl amide dispersion
CATIONIC	**APPRAMINE***	X	X		X		X	substituted fatty amide
HEAVY-BODIED	**TORRIDEX***	X	X					sulfonated tallow
OXIDATION RESISTANT	**WARCOLENE* 171**	X	X				X	sulfated fatty acid ester
WATER REPELLENT DURABLE	**NORANE* R**	X	X					chloromethylated quaternary ammonium compound
WATER REPELLENT DURABLE	**NORANE* W**			X	X			wax emulsion plus metal salt complex
WATER REPELLENT RENEWABLE	**IMPREGNOLE***	X	X	X	X	X	X	wax emulsion with polyvolent salts
GAS FADING INHIBITOR	**WARCO* GFI**		X					high molecular weight amino compound
GAS FADING INHIBITOR	**WARCO* GND**		X					mixed organic amines (non-durable type)
KIER BOILING COMPOUNDS	**KIEROLE***	X	X				X	sulfonated fatty acids
KIER BOILING COMPOUNDS	**COLOROLE***	X	X				X	sulfonated fatty acids
LUBRICANT (YARN, FABRIC)	**WARCOLENE***	X						solubilized oil
LUBRICANT	**WARCO* A 221**	X						non-ionic emulsion
PENETRANTS—REGULAR	**WARCOSOL***	X						sodium alkylnapthalenesulfonate
PENETRANTS—NON-FOAMING	**WARCOSOL* NF**	X	X	X				blend of organic esters
PENETRANTS—MERCERIZING	**EUMERCIN***	X						cresylic and non-cresylic types
PIGMENT PRINT BINDERS	**SUNTONE* CLEARS**	X	X					emulsified resinous compounds
PIGMENT PRINT BINDERS	**FORMASET* 20**	X	X					partially polymerized urea-formaldehyde resin
TAR AND GREASE REMOVER	**LANOLE***	X	X	X	X			detergent solution in organic solvent
SYNTHETIC DETERGENT	**SULFANOLE* KB**	X	X	X	X	X	X	sodium alkylarylsulfonate
SYNTHETIC DETERGENT	**SULFANOLE* CP**	X	X	X	X	X	X	sulfated fatty amide
SYNTHETIC DETERGENT	**SULFANOLE* S GEL Conc.**	X	X	X	X	X	X	sulfonated fatty amide
SYNTHETIC DETERGENT	**SULFANOLE* AN**	X	X	X	X	X	X	fatty acid amine condensate
WETTING AND REWETTING	**WARCOSAN*B Conc.**	X	X					sodium alkyl ester sulfate
WOOL SCOURING	**LANOLE* B**		X	X				stabilized organic solvent soap compound

*Trade Mark Reg.

WARWICK
CHEMICAL
COMPANY, DIVISION

CHEMICAL
CORPORATION

Detailed technical information, samples and counsel on any Warwick product sent on request. Write, wire or phone . . .

10th STREET AND 44th AVENUE, LONG ISLAND CITY, NEW YORK

The Cards Are Stacked

A FACT very important to the American people has received little publicity in the series of hearings now being conducted in Washington. Before the press is permitted to pass on to the people the text of these hearings, every word uttered, every record submitted, must pass through the hands of censors. These censors were chosen by two Cabinet members, the Secretary of Defense, and the Secretary of State. Thus we have a game in which Marshall and Acheson are not only doing the pitching, but also acting as umpires.

General Marshall not only has the privilege of censoring his own testimony, but that of General MacArthur as well. Senators who have heard the testimony of both men have told New York and Washington reporters that secret and confidential documents produced at the hearings show little disagreement between MacArthur's views and those of the Joint Chiefs of Staff. Particularly were they in perfect agreement that Formosa should never fall into the hands of the Chinese Reds.

Acheson is on written record as holding that Formosa was of no strategic value, and senators who have heard Marshall's testimony before censors worked it over have stated that Marshall has produced no evidence that he did not concur in Acheson's opinion that the Reds could have Formosa and a seat in the U. N. in exchange for peace in Asia.

Some pertinent questions were undoubtedly put to General Marshall, but it is doubtful if the blue pencil of the State Department will ever permit his answers to reach the American public.

It was General Marshall who went to China to investigate the regime of Chiang Kai-Shek and who returned with the recommendation that the United States cut him adrift. It was Acheson who said that the men fighting against Chiang were not Communists but "agrarians" who had no sympathy with Moscow. The United States withdrew its support from Chiang and he was forced out of China, whereupon Acheson's "agrarians" took over, and turned out to be Chinese Reds—the same Reds fighting and killing our men in Korea today. It was the team of Truman-Acheson-Marshall which permitted the infamous "White Papers" to become a part of our Asiatic philosophy, and it was this same team that had much to do with suppressing the Wedemeyer Report, a document compiled in 1947 in which we were warned against much of what has happened to us in Korea.

It was Acheson who had a secret agreement with the British Foreign Office that gave Britain the green light to go ahead two years ago and recognize Red China as the official government of China. And it was General Marshall who, while on his ill-fated mission to China, stopped in Tokyo, called upon General MacArthur, but did not discuss any phase of his mission with the man who knew better than any living foreigner the Asiatic mind.

All these items are matters of record, part of the history of our foreign policy in Asia. The State Department's censors at these hearings can blue-pencil much of the record today, but they cannot blue-pencil the archives of history.

As far as the American public is concerned, the cards are stacked at these hearings unless Chairman Russell will lift the cloak of secrecy from those things deleted by biased censors under the pretext that these things endanger our national security. — *Mooresville* (N. C.) *Tribune.*

C.I.O. Promised Bombings

TRUE to the promise made two years ago, the C.I.O. is bringing terrorism and bloodshed to the South. An explosive charge dropped in a manhole near the power plant of a mill at Danville, Va., stopped operations in the big plant and most of the mill community's village of Schoolfield, where 4,500 reside, was without electric service.

Defying the United States Army Quartermaster needs for war goods, the C.I.O., headed by a son of Poland, and others from the old countries of revolutionaries, resort to Hitler-Mussolini tactics. Several days of restive calm were broken by the night blasts. Earlier, two dynamite blasts were reported.

Fear, terrorism, intimidation and the breaking up of normal home lives, is the pattern of the vicious C.I.O. in its earlier days in Michigan, later in other sections of the nation, now coming South, as George Baldanzi, one of the leaders, told his convention members would be the C.I.O. invasion of Dixieland—people will be killed, he said.

When workers refuse to be coerced, they are threatened. Dynamite and explosives, ice picks, tacks, and conga-like picket lines are used, and insults hurled. On top of that, the C.I.O. defies the Federal Government and refuses to permit war goods to be produced.

Is this the kind of leadership we want in our area? If there is to be a showdown, the spirit of free enterprise and resistance to disorder by outsiders, will be made known to the world.—*Anderson* (S. C.) *Daily Mail*

A Lesson In Socialism

AS a teacher in the public schools, I find that the Socialist-Communist idea of taking "from each according to his ability," and giving "to each according to his need" is now generally accepted without question by most of our pupils. In an effort to explain the fallacy in this theory, I sometimes try this approach:

When one of the brighter or harder-working pupils makes a grade of 85 on a test, I suggest that I take away 20 points and give them to a student who has made only 55 points on his test. Thus each would contribute according to his ability and—since both would have a passing mark — each would receive according to his need. After I have juggled the grades of all the other pupils in this fashion, the result is usually a "common ownership" grade of between 75 and 80—the minimum needed for passing, or for survival. Then I speculate with the pupils as to the probable results if I actually used the Socialistic theory for grading papers.

First, the highly productive pupils—and they are always a minority in school as well as in life—would soon lose all incentive for producing. Why strive to make a high grade if part of it is taken from you by "authority" and given to someone else?

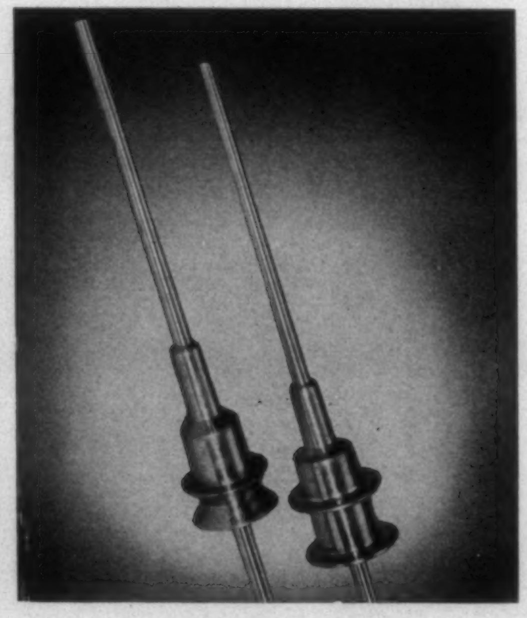
Second, the less productive pupils—a majority in school as elsewhere—

New Fluted Rolls

Now Available at Substantial Savings

New automatic machinery recently installed makes it possible for Southern Spindle and Flyer Co. to manufacture FLUTED ROLLS for spinning and flyer frames at LOWER costs. We pass these savings on to you.

Compare our prices for all types of NEW fluted rolls with the cost of reworking OLD rolls. You'll be pleasantly surprised at the small difference in cost. All of our new fluted rolls are made with screw necks. They're precision made of the highest grade steel and are held to close tolerances. They can be finished also with hard chrome plating.



New England Representative
WM. R. FOX
P. O. Box 380 — Providence, R. I.

WHORLS

- **Band and tape drive**
- **Precision made**
- **Made to specifications**
- **Guaranteed**

SPINDLES

- **Retopped by electric butt welding or tops built up with chrome and reground to size**
- **Pointed, polished, straightened—as good as new**
- **All spindles tested for straightness and accuracy at running speeds**

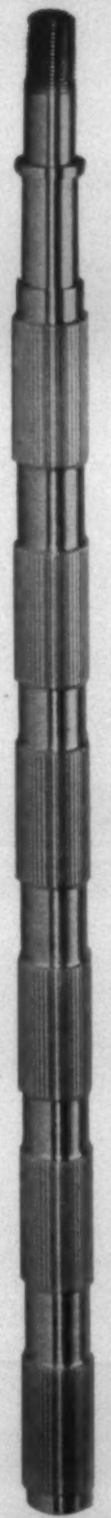
PROMPT DELIVERIES AVAILABLE

Write, wire or phone 2-3118
for further information

50TH ANNIVERSARY OF SERVICE TO THE TEXTILE INDUSTRY

Southern SPINDLE & FLYER COMPANY

821 West First Street • Phone 2-1329 • Charlotte 1, N. C.



would, for a time, be relieved of the necessity to study or to produce. This Socialist-Communist system would continue until the high producers had sunk—or had been driven down—to the level of the low producers. At that point, in order for anyone to survive, the "authority" would have no alternative but to begin a system of compulsory labor and punishment against even the low producers. They, of course, would then complain bitterly, but without understanding.

Finally, I return the discussion to the ideas of freedom and enterprise—the market economy—where each person has freedom of choice and is responsible for his own decisions and welfare.

Gratifyingly enough, most of my pupils then understand what I mean when I explain that Socialism—even in a democracy—will eventually result in a living death for all except the "authorities" and a few of their favorite lackeys.—*Thomas J. Shelly,* high school economics and history teacher at Yonkers, N. Y.

The Gayley Mill

ANNOUNCEMENT that Deering, Milliken & Co., Inc., will soon erect and operate a new nylon and rayon plant, to be known as the Gayley Mill, is further indication of the steady industrial growth of Greenville County. The new plant will be located about four miles west of Marietta, approximately at the present site of Allison School. It is expected to employ between 200 and 300 persons with an annual payroll of a half million to a million dollars.

Exemption of productive machinery from the sales tax is said to have been a major factor in the company's decision to put the new mill in South Carolina, but the recently organized Greenville County Planning and Development Board is due most of the credit for the choice of Greenville County as the actual location.

Included in the 1,000-acre tract which the company has secured is some excellent agricultural land as well as some areas long popular with county hunters. Plowboys and 'possum hunters alike must soon disappear from the area, however.

Construction of the Gayley Mill, along with that of the plant recently located in Fountain Inn, means that virtually every section of the county has been given industrial opportunity. —*Greenville* (S. C.) *News.*

Time For Decision

THE tides of confusion on the American scene sweep back and forth like the tides of the ocean. It is difficult sometimes for a thinking American to know what to believe. The firing of General MacArthur dramatized another great difference of opinion among our fellow citizens.

Our enemies—the Communists—are delighted with this situation. They do everything possible to stir up confusion. A divided nation is a weak nation. You don't have to be an experienced agitator to realize that.

It is time for level-headed thinking —not frightened speculation. It is time to put the national interest and national security above all partisan issues. It is a time for decision. As always, we believe the common sense of the American people and the urgent necessity for a united America will give us the answer to the current threatening situation.—*Bur-Mil Review,* Burlington Mills Corp.

Jarrett's
Trade Mark Reg.
META-CLEAN

Picture of a Man Making Money

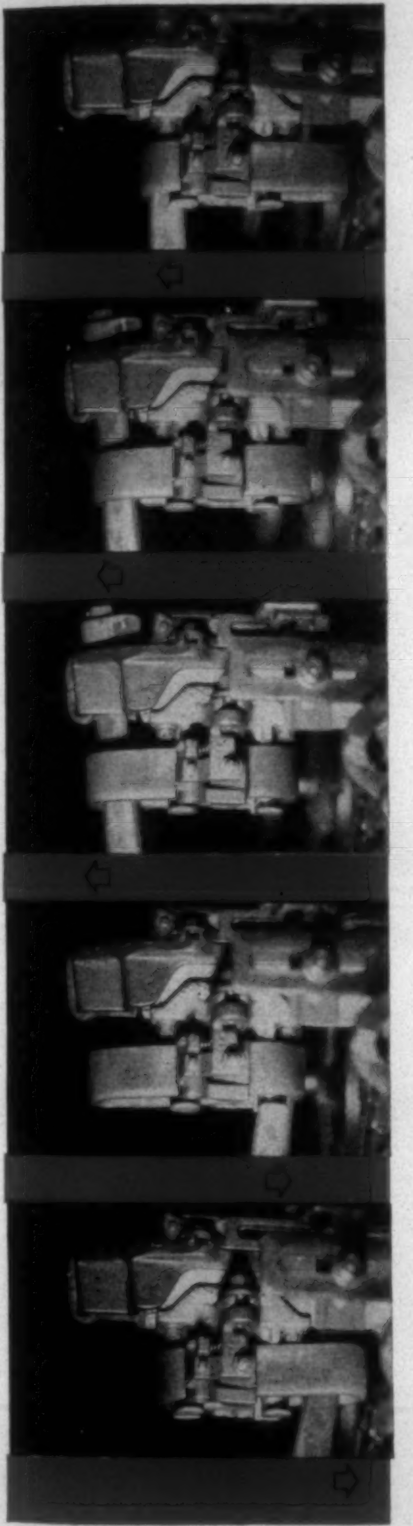
This loom will be back in production in a fraction of the usual time, because Jarrett's META-CLEAN dissolves oil, grease, dirt, size deposits, etc., amazingly fast. It works equally well on other textile equipment. Saves labor, too, because one man can do the work formerly requiring several men.

Jarrett's META-CLEAN actually costs less than slower cleaners because it is effective even when diluted with 20 parts water. Better to use, too — no smell — no fire hazards — and absolutely harmless to skin. Equally effective when sprayed, brushed, wiped on, or for immersion of smaller parts.

We will welcome the chance to show you how Jarrett's META-CLEAN will increase your production, save labor, and reduce your cleaning material bills.

Satisfaction Given — Not Promised

CECIL H. JARRETT COMPANY, INC.
Manufacturer & Distributor of Chemicals and Supplies, Newton, N. C.



Follow-thru with Leather

CUT SHUTTLE COST
KINKY FILLING
INCREASE PROFITS

see how the Hairitan*

ENDLESS CHECK STRAP

cushions the stick at each end of its stroke

"Follow-thru" cushions the fireball pitch! . . . and the Hairitan Endless Check Strap cushions the picker stick as it approaches each end of its stroke.

These frozen-action photographs, taken at 1/20,000th of a second, show a newly installed endless check strap on a Draper X2 loom doing 175 picks a minute. Notice that this brand new strap already functions perfectly, cushioning the picker stick to enable picker and shuttle to move to end of lay without shuttle bounce. Notice the free sliding action, with tension uniform on each side of the stick — and also the perfect way in which the strap conforms to the angle of the stick.

The Hairitan Endless Check Strap is made of a single piece of choice quality Hairitan leather, folded double and cemented. It can be furnished hair-on or hair-off, in the standard lengths required for each Draper Loom for which the necessary fingers are available.

The Hairitan Endless Check Strap is an important member of the Orange Line team of loom leathers that work together to *give you more profit.*

The new catalog of G&K-DIXIE Textile Leathers proves, with high-speed photographs, the balanced follow-thru team performance of Orange Line Leathers. Send for your copy and enjoy this new freedom from bang-off!

100 YEARS OF SERVICE TO INDUSTRY

GRATON AND KNIGHT®

DIXIE LEATHER CORPORATION
GRATON & KNIGHT AFFILIATE

Endless Check Strap

FAMOUS ORANGE® LINE TEXTILE LEATHERS

GRATON & KNIGHT COMPANY, WORCESTER, MASS. • DIXIE LEATHER CORPORATION, ALBANY, GEORGIA *Affiliate*

"Bond purchases fill a continuing employee need . . ."

C. E. WILSON

President, General Motors Corporation

"Our Payroll Savings Plan, which was inaugurated pre-Pearl Harbor, has continued without interruption in war and peace. It is our experience that employees benefit personally as well as economically from such cultivation of the habit of thrift."

In General Motors, employees have to date purchased more than $841,000,000.00 maturity value of Bonds through the Payroll Savings Plan.

Inaugurated largely for patriotic reasons in August 1941, the plan proved so helpful in meeting an employee need that GM decided to continue it as a regular part of its employee program.

The experience of General Motors is paralleled by that of many other successful organizations. In upwards of 21,000 large companies today, more than 8,000,000 Americans are investing $150,000,000 in U. S. Savings Bonds every month.

Every Payroll Savings Plan is of direct benefit to the country, the company, and the employee. It is the one way of insuring our strength as individuals and as a free people.

Employees *want* the Payroll Savings Plan. If you do not offer your people the plan . . . or if you have not made a person-to-person canvass recently—phone, wire or write to Savings Bond Division, U. S. Treasury Department, Suite 700, Washington Building, Washington, D. C. Your State Director will contact you to explain the simple pattern of the person-to-person canvass and supply you with application blanks, posters, pay envelope enclosures and other helpful material.

Act now—to help your employees, your company and the stability of the American economy.

Recent increases in employee participation in the Payroll Savings Plan following person-to-person canvasses:

Hotpoint, Inc., Chicago, from 8.7% to 96% of 9,000 employees . . . Standard Oil of Indiana (Illinois; 26,175 employees), from 32.3% to 79.1% . . . Kelly Springfield Company (Maryland; 2,000 employees), 46.8% to 83.3% . . . A. M. Byers Co. (2,500 employees). 26% to 91% . . . Crucible Steel Company (14,500 employees) reinstatement of plan, 65%. Consolidated Western Steel Corporation (California; 7,528 employees) 9.3% to 84.8% . . . Wisconsin Electric Power Co. (3,000 employees) 44.3% to 73%.

The U. S. Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, The Advertising Council and

textile bulletin

Synthetics, new and old

NEW FIBERS—NEW TECHNIQUES—NEW PROBLEMS

If your problem is dyeing

ACETATE RAYON CHEMSTRAND
NYLON DYNEL ORLON DACRON
CELCOS VISCOSE · VICARA GLASS

we offer practical assistance based upon the accumulated experience of our Research Laboratories and Field Technicians.

We will recommend the dyestuffs to use and suggest the method of dyeing which in our experience gives the best result in terms of end-use. Submit your problem to our nearest sales office. Your inquiry will receive careful and prompt attention.

GDC

GENERAL DYESTUFF CORPORATION
435 HUDSON STREET · NEW YORK 14, NEW YORK

Southern Textile Assn. Convention

This year's S.T.A. convention will be held June 21-22-23 at Mayview Manor, Blowing Rock, N. C. Mill managers, superintendents, overseers and other operating executives, whether or not members of the Southern Textile Association at present, are urged to attend.

As of April 10, all rooms at Mayview Manor had been reserved for the convention week-end. However, an unlimited number of European plan double rooms is still available at Green Park Hotel, a very comfortable establishment on the golf course not far from Mayview. These double rooms at Green Park are $8, $10 and $12 per day for two persons, and *reservation requests should be sent direct to the Green Park management accompanied by a one-day deposit.* The accompanying blank may be used for this purpose.

Since the Green Park dining room will not be in operation until later in the season, persons registered there may get meals at Mayview Manor ($1.50 breakfast, $2.50 luncheon, $3.50 buffet supper Thursday night, and $5 banquet Friday night—plus 3% sales tax and 10% gratuity) or at the several public restaurants in the business district of Blowing Rock.

In addition to Green Park facilities, rooms (with or without meals—American or European plans, respectively) are available at other hotels and inns. These include Hotel Skyland (35 rooms, American plan), Martin House (28 rooms, American), Watauga Inn (25 rooms, American), Sunshine Inn (15 rooms, American), Skyway Lodge (ten rooms, American), and Parkway Hotel (ten rooms, European). Rates at Martin House are $6 and up per day single, $12 and up per day double; at Watauga Inn, rates are $7 and up per day single, $12 and up per day double. Information about charges at the other establishments may be secured direct from their managements. For information about smaller lodges and tourist courts, write to the Blowing Rock Chamber of Commerce.

Arrival should be scheduled for Thursday afternoon, since activity begins that evening with a buffet supper. The first business session will take place Friday morning; that afternoon there will be the annual golf tournament and bingo game, followed by the Associate Members Division reception and banquet that night. The convention will end Saturday morning with a final business session and election of new officers for 1951-52.

Mrs. Helene Williams, Manager
GREEN PARK HOTEL
Blowing Rock, N. C.

Please enter the following double room reservation in my name for the Southern Textile Association convention June 21-23:

(Check one)

______$ 8 per day (third floor)
______ 10 per day (rear view)
______ 12 per day (front view)

This amount covers daily charge for myself and

____________________(name)

Signed: ____________________(name)

____________________(firm)

____

____________________(street, number & city)

textile bulletin

PUBLISHED MONTHLY BY
CLARK PUBLISHING COMPANY
P. O. Box 1225 . CHARLOTTE 1, N. C. . Telephone 3-3173
— Offices and Plant: 218 West Morehead Street, Charlotte 2 —

David Clark . . . . *President and Editor*
Junius M. Smith . . . *Vice-President and Business Manager*
James T. McAden, Jr. . . . . *Editorial Director*
Ervin Dickson . . . . *Associate Editor*
Andrew Hewitt . . . . *Assistant Editor*
F. R. Carey . . . . . . *Vice-President and Eastern Manager*
(P. O. Box 133—Providence, R. I.—Telephone Williams 3957)
R. J. Shinn . . . . *Field Advertising Representative*
Ben C. Thomas . . . . . . *Field Circulation Representative*

One year payable in advance	$1.50
Three years payable in advance	3.00
Canada (one year)	3.00
Other countries in Postal Union (one year)	5.00
Single copies	.15

Emil, George and Lewis

As this is written, most members of the Textile Workers Union of America who were on strike in Southern mills for five weeks are back at work. There have been various accusations from union leaders that management broke the strike, but the real truth is that the strike just simply fell apart.

The union boys are a little too smart to take advice, but we would suggest to them that in the future they pick a better time to strike. Considering the currently poor market, there were not many mill executives who regretted, from a financial standpoint, having their plants shut down for a while. Yes, they regret the sporadic outcroppings of strike violence, they regret the delays in fulfillment of military orders, and they regret the engendering of ill will between employee and employer. But how many mill executives are anxious to run their mills when there is a shortage of orders for yarn or cloth?

It did us good to observe the general solidarity of management. Among executives there developed a desire to get the matter settled, and not to allow the union to nibble the industry to pieces, mill by mill. Management had this attitude: "All right, Emil Rieve, George Baldanzi, Lewis Conn and the rest of your crew, let's put this issue in the middle of the floor, kick it around, let all directly concerned with it, as well as the public, inspect every facet and come to some conclusion."

T.W.U.A. leaders claimed that a total of 40,000 workers were out during the strike, when actually little more than 30,000 were striking. On May 5, when *union* leaders advised their locals to vote for a cessation of the strike, T.W.U.A. said that 9,000-plus union members were still out, when actually there were but five or six thousand who continued the idleness imposed on them by Rieve, Baldanzi and Conn.

Now Cyrus Ching, through his Federal Mediation and Conciliation Service, has set up a three-man panel which is supposed to bring about a wage agreement between the T.W.U.A. and Southern textile mills. A wage agreement? What is there to agree upon? To our mind there is nothing to mediate, since, as one mill informed Mr. Ching, "We have given the maximum raise (two per cent) allowed by Washington, and any mediation should be between the union and the government."

We doubt if the mediation panel will accomplish much. Its public member, Francis O. Clarkson, a Charlotte attorney, left Charlotte May 17 for a tour of Europe. Representing management on the panel is Taylor R. Durham of Charlotte, president of the Southern Hosiery Manufacturers Association. Mr. Durham accepted service on the panel with the definite understanding that (1) there would be no arbitration; (2) there would be no open hearings to provide a sounding board for union oratory; (3) there would be no "fact-finding" report which would place employers under public pressure; and (4) his personal connection with the panel would be solely for the purpose of representing management and that it be understood to begin with that such influence as Mr. Durham might exert would be entirely in the employers' favor. That leaves the third panel member, Ray C. Nixon of Atlanta, Southern regional director of the C.I.O. United Rubber Workers Union, with little elasticity of action.

We of course do not get any closer to union executive conferences than mild snooping about in hotel lobbies, but we like to imagine the conversation between Rieve, Baldanzi, Conn, etc., which probably took place early this month. (These names fall into a euphonious pattern almost as effectively as the "Martin, Barton and Fish" reference that Mr. Roosevelt used in his third term campaign.) At any rate, we can picture Emil, George and Lewis sitting in a hotel room. The conversation would go like this (readers please supply appropriate accents):

George: "Look, Emil, let's forget our personal differences about who is to control the union and get the most gravy out of it, at least for a while, so we can keep this organization alive.

Emil: I do appreciate your attitude, George. This strike seems to be getting nowhere, because some mills don't seem to care whether they run or not, and those who want to are operating despite the strike. And at the same time, T.W.U.A. has been nicked to the tune of about a million bucks.

Lewis: I'm just a state director, but I'll tell you one thing. We had better stop eating at the best restaurants in Greensboro. Our members must know we are not eating fatback, which, if you will pardon my heresy, is the only meat our commissaries are passing out. And on top of that, the rumor is going around that we are going to ask the strikers to repay us for the food which has been advanced to them.

Emil: Don't be absurd, Conn. You know perfectly well we won't do it that way. We can raise the dues a little later on to take up the slack. And besides, we can put off the wholesale grocers for some time. You must remember that we have never been forced to pay that wholesaler in Virginia.

George: How much you making now, Emil?

Emil: You trying to be facetious? You know how much I make, and you can read the April 21st issue of our *Textile Labor* if you want a breakdown of our expenses. To refresh your memory, the "administrative" schedule breaks down this way: salaries and travel expenses for executive officers, $69,744.22; Social Security and unemployment insurance taxes for officers, $145.44; salaries and travel for other personnel, $31,063.93; convention expense, $73,504.30; C.P.A. and council reporting fees, $2,810.85. That adds up to $177,268.74—a right sizable kitty with plenty in it for all of us. Besides, our entire budget from March 1st of last year to February 28th of this was nearly five million dollars. That's a lot of money, and you know the membership will pass anything we recommend in the way of budget changes.

Lewis: Excuse me if I seem disrespectful, but will you guys quit chewing at each other? The pressure is on me in Greensboro, and I want some decision. I keep making public statements about having the mills in North Carolina shut down completely, and all the time the spindles and looms are running like hell. Every day folks are quitting the picket lines and going back to work. Before you know it we won't have any strike.

Emil: I see your point, Lewis. What you say we put out a feeler through John Edelman in Washington and see if we can't stir up some action.

George: We already arranged to have the Labor Department make some investigations in Greensboro, Charlotte and Danville.

Lewis: That ain't the point. They couldn't run down any cases of management being responsible for violence. Thank goodness the investigators didn't say who *was* responsible; we fixed *that.* What I want you fellows to do is get this strike over without it looking like the union has lost it.

TEXTILE INDUSTRY SCHEDULE

— 1951 —

June 6—A.A.T.T., Builders Club, New York City.

June 8-9—Annual outing, **SOUTHEASTERN SECTION, A.A.T.C.C.**, Radium Springs, Albany, Ga.

June 18-22—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Atlantic City, N. J.

June 21-23—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Mayview Manor, Blowing Rock, N. C.

June 29-30—Summer outing, **PIEDMONT SECTION, A.A.T.C.C.**, Ocean Forest Hotel, Myrtle Beach, S. C.

Sept. 8—SOUTHEASTERN SECTION, A.A.T.C.C., Columbus, Ga.

Sept. 12—A.A.T.T., Builders Club, New York City.

Sept. 13-14—Fall meeting, **FIBER SOCIETY**, Swampscott, Mass.

Sept. 20-21—Annual convention, **SOUTH ATLANTIC COUNCIL OF INDUSTRIAL EDITORS**, Asheville, N. C.

Sept. 22—PIEDMONT SECTION, A.A.T.C.C., Charlotte Hotel, Charlotte, N. C.

Oct. 3—A.A.T.T., Builders Club, New York City.

Oct. 4-5—Annual convention, **CARDED YARN ASSOCIATION**, Carolina Inn, Pinehurst, N. C.

Oct. 17-19—Annual national convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**, Statler Hotel, New York City.

Oct. 18-19—Annual convention, **NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION**, Carolina Hotel, Pinehurst.

Nov. 7—A.A.T.T., Builders Club, New York City.

Nov. 8-9—Annual meeting, **TEXTILE RESEARCH INSTITUTE**, New York City.

Dec. 1—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

Dec. 3—AMERICAN ASSOCIATION OF TEXTILE TECHNOLOGISTS, Builders Club, New York City.

Dec. 8—SOUTHEASTERN SECTION, A.A.T.C.C., LaGrange, Ga.

—1952—

March 3-7—Spring meeting and committee week, **A.S.T.M.**, Cleveland, O.

April 16-17—Spring meeting, **FIBER SOCIETY**, Clemson House, Clemson, S. C.

May 15-17—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Haddon Hall, Atlantic City, N. J.

June 23-27—Annual meeting, **A.S.T.M.**, New York City.

June 26-28—Annual convention, **S.T.A.**, Ocean Forest Hotel, Myrtle Beach, S. C.

Nov. 6-8—Annual national convention, **A.A.T.C.C.**, Boston, Mass.

— 1953 —

Sept. 17-19—Annual national convention, **A.A.T.C.C.**, Stevens Hotel, Chicago, Ill.

— 1954 —

April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

George: You don't want much, do you?

Emil: Now, George, you have a completely negative attitude. And that reminds me of something. I told you some time ago you should have changed the spelling of your name. You can act like a linthead as much as you want, but that name belies any idea you may want to put across that you ever gave a rebel yell.

George: Doing better than you did in Poland, ain't you Emil?

Lewis: I changed mine, Boss.

George: Stop kissing around, Conn, and be careful who you call "Boss."

Emil: Look, we ain't getting anywhere. This strike is about to bust us. I'm going to get Edelman on the phone.

Lewis: I still want to know how we are going to get the mills to give a raise larger than the law allows.

George: You got a lot to learn, boy. If we can get some kind of mediation board set up we can let this strike simmer down so that it won't look like we have called it off. I never saw a board do anything fast, so by the time it reaches some kind of conclusion, if any, we can have applied pressure from the top in Washington to relieve us of that ten per cent limit. Laws can be changed, you know, and there are always the courts.

Emil: Don't mention courts to me. Them judges aren't playing along like they used to. Couple of our fellows set off some dynamite in Danville, and damn if they didn't get put in jail. And incidentally, George, you had better get hot up there or we will wind up losing the next election.

George: What can I do? We tried to call out 11,500 people, and 7,500 of them stayed on the job. I'll be honest with you, I don't think the folks in Danville want a union any more. You know what? They even had the nerve to walk up a steel ramp over the fence so they wouldn't have to cross our picket lines. Lot of them crossed the picket line anyhow. And I always did say that that red-headed gal we sent in there was dressed too well. Besides, all she knows about the textile business is how to walk up and down the steps of a mill.

Emil: Let's quit bitching at each other and just face the fact that we have lost this strike. Our purposes at the moment will be served best if we get it called off. You must remember that we don't have but about 20 per cent of the Southern textile workers organized, and the other 80 per cent can keep us busy enough for us to convince our members that we are earning our pay. George, pick out a few owners of Northern mills which can't compete with modern mills and get them to do some more talking about how the industry will never reach a healthy state until all mills are organized—you know, the usual line. We will stir up enough activity so that this miscarriage of a strike will be forgotten before long.

Lewis: But we kept these people off their jobs right many weeks, and they didn't get much more out of it than fatback, beans and potatoes. How you going to explain that?

Emil and George (in chorus): You got a lot to learn, boy.

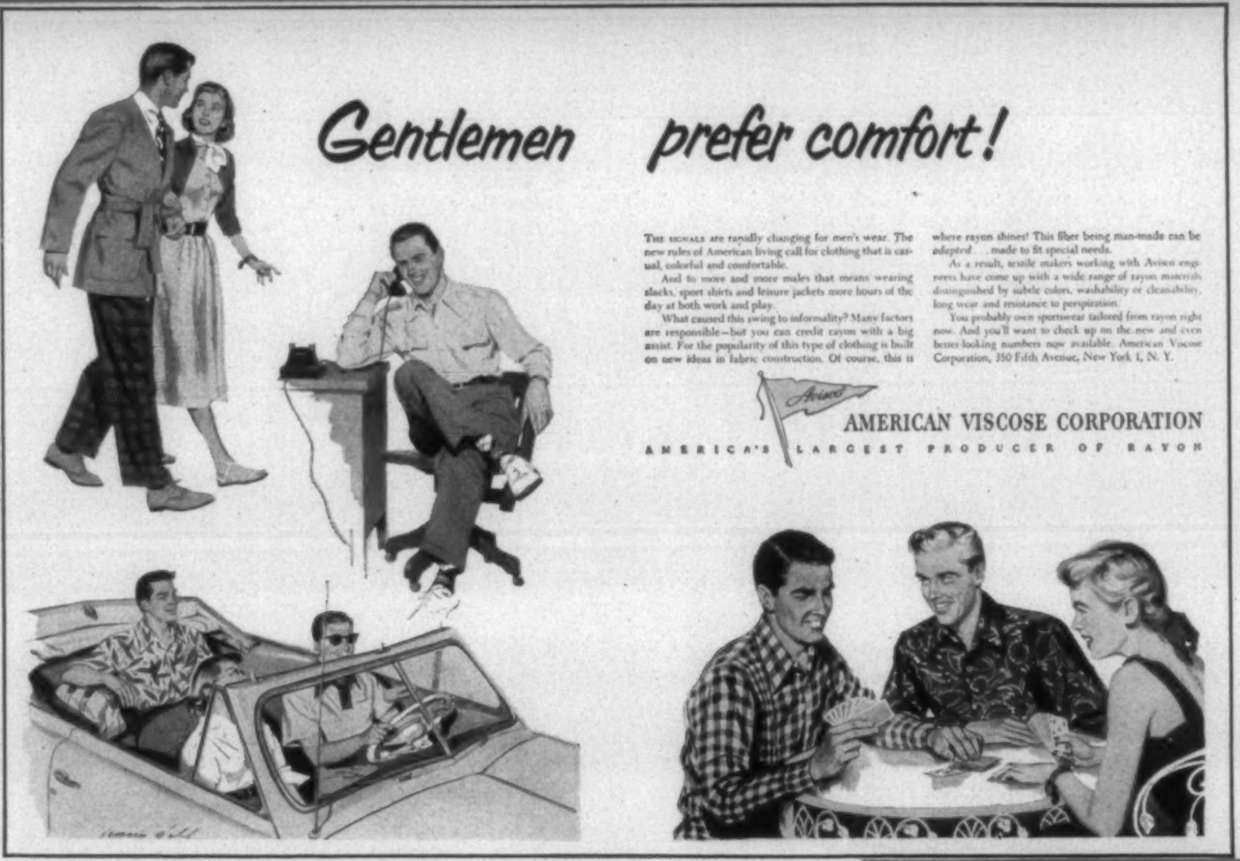
It might be said that *all* of the textile union leaders have got a lot to learn. The editors of TEXTILE BULLETIN will admit to being biased on the subject of labor-management relations in the textile industry, but we honestly believe that management has done, and is doing, everything within reason to improve working conditions. Average gross weekly earnings in Southern mills have risen in less than 12 years from $13.83 to $51.25; with 1939 indexed at 100, this means that the present index is 370.6, while during the same period the Department of Labor, consumers' price index has advanced from 100 to 174.80.

T.W.U.A. itself recently cited technical advances in textile manufacturing which make for easier mill jobs—improved lighting, increased use of air control, elimination of much manual labor, etc.

And yet, these fast-talking messiahs with foreign roots continue to slur Southern textile management. Owners of Southern textile mills are in the business for profits, not the

Rayon Reports

epared Monthly by American Viscose Corporation, New York, N. Y. May, 1951



Gentlemen prefer comfort!

The signals are rapidly changing for men's wear. The new rules of American living call for clothing that is casual, colorful and comfortable.

And to more and more males that means wearing slacks, sport shirts and leisure jackets more hours of the day at both work and play.

What caused this swing to informality? Many factors are responsible—but you can credit rayon with a big assist. For the popularity of this type of clothing is built on new ideas in fabric construction. Of course, this is where rayon shines! This fiber being man-made can be *adapted* . . . made to fit special needs.

As a result, textile makers working with Avisco engineers have come up with a wide range of rayon materials distinguished by subtle colors, washability or cleanability, long wear and resistance to perspiration.

You probably own sportswear tailored from rayon right now. And you'll want to check up on the new and even better-looking numbers now available. American Viscose Corporation, 350 Fifth Avenue, New York 1, N. Y.

AMERICAN VISCOSE CORPORATION

AMERICA'S LARGEST PRODUCER OF RAYON

Avisco ad, appearing recently in *The New Yorker* and *Time Magazine*, dramatizes the contribution of rayon to the growing popularity of sportswear. The advertisement makes the point that good looking rayon fabrics now available have done much to stimulate consumer demand for more informal clothing. Like its predecessors, this Avisco message is designed to keep the public and opinion leaders abreast of developments in rayon—and to stimulate acceptance for rayon products.

RAYON 20 YEARS AGO

New York, May, 1931—Cherrybloom Pink, Bamboo Tan, Buddha Blue, Lanternglow Yellow, Pagoda Cream and Oriental Red have been selected as the official colors for the 1931 summer season.

New York, May, 1931—A new motion picture entitled "The Quality Control Plan" is being made available to retail stores by The Viscose Company.

Brooklyn, May, 1931—The exhibition of decorative art being held here is arousing wide interest. Featured attractions are rayon bedspreads, draperies, and wallcoverings.

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

exercise they get out of it; by the same token, a selfish desire for personal profit prevails among the union leaders. We can't really believe that Rieve, Baldanzi and Conn are in it because they feel that Latham the loomfixer and Sarah the spinner are being mistreated.

Even at that, a union leader shoots off his mouth every now and then and says something which indicates that members of the T.W.U.A. Southern locals are considered as pawns for T.W.U.A. executives. Boyd E. Payton, T.W.U.A. director for the upper South, was interviewed at Danville recently, and disavowed any responsibility on the part of the international union for strike violence. Mr. Payton, in a somewhat learned fashion, brushed off the incidents by saying that to settle a dispute by violence "is endemic to the mill people of this area, whether it be industrial strife or any other kind of row. A number of Southern mill workers, especially in the middle-aged and older groups, are illiterate. All that some of these people have is their hands; that's what they know—how to use their hands."

Who, then, are these illiterates who have been arrested for strike violence? Are they the ordinary union members? Let's list a couple:

(1) John Howard Crew, business manager of the Pittsylvania County T.W.U.A. Joint Board at Danville, arrested when police found three sticks of dynamite, about 25 percussion caps and some four feet of fuse in his home; he was convicted and fined.

(2) Norwood Holford, president of the T.W.U.A. local at Wake Forest, N. C., arrested for and subsequently convicted of assaulting a non-striking worker.

At Durham, N. C., three Erwin Mills employees were attacked while on their way to work, and a dynamite charge wrecked one of two pickers in an Erwin plant. At Rome, Ga., paint and corrosive acid were splattered on the property of non-striking workers.

Early this month employees of the Republic Cotton Mills Division of J. P. Stevens & Co. voted overwhelmingly for "no union" in an election conducted by the National Labor Relations Board. Of the ballots cast, 1,120 workers at the three Republic plants voted "no union," 507 favored joining the Textile Workers Union of America, 59 preferred the United Textile Workers, A.F.L., 16 votes were voided and 43 were challenged. "The election results," according to a newspaper report, "were greeted with the blowing of many automobile horns and a general boisterous celebration." A celebration *was* in order. Just last month the board of directors of J. P. Stevens made the following announcement:

> For a long time the management of our company has been increasingly concerned about the difficulties surrounding the operation of our Hockanum Mills in Rockville, Conn. The properties of these mills are not as modern as we would like them to be in order to operate efficiently and profitably under competitive conditions. Moreover, these mills have been seriously handicapped by the unwillingness of the union to permit us to set up work assignments comparable to those in other plants. At the present time and for many weeks they have been sbustantially closed down due to a strike resulting from our inability to agree with the union on the terms of a contract. In these and various other respects our efforts to go forward at these mills have been handicapped and obstructed.
>
> In the light of all relevant circumstances we have reluctantly but definitely concluded that our continued operation of these mills is not economically practical. We, therefore, are offering them for immediate sale as a going concern and will give consideration to any bona fide offer which we may receive for them between now and May 1, 1951. If no satisfactory arrangements for the sale of these mills can be concluded within this period, the properties will then be liquidated.
>
> This decision on our part has not been easy and has been made with sincere regret. The record of J. P. Stevens and Co., Inc., has not been one of contraction and liquidation but of building and expansion. We must, however, face the facts of the situation.
>
> We are mindful of those who have been our friends in the Rockville community through the years—employees and others as well. We feel an especial indebtedness to those who during the current strike have loyally continued at work. It is not their fault that they have been so few.
>
> For reasons similar to those necessitating the decision which has been made with respect to Hockanum Mills, the directors of our company have also reluctantly concluded that operations at Pentucket Mills in Haverhill, Mass., are to be terminated. This decision has likewise been a difficult one, not only because the company has so long been identified with the community but also because of the recent efforts of a group of the employees there in initiating a return to work movement. Nor do we forget the efforts of those citizens of Haverhill who have tried to help us preserve this industry in that community. The situation is simply one in which no other decision finally seems practical than the one which has been made.

Another incident up North had a New England mill executive calling on all New England textile employers to help extend unionism in the South. Speaking at a dinner in Stonington, Conn., jointly sponsored by American Velvet Co., of which he is president, and Local 110 of the Textile Workers Union of America, Clarence A. Wimpfheimer said: "We have no real job security here until the South is organized. We've got to have unions to protect us so that wage rates are drawn closer together, not farther apart. And when I say we, I include management." Mr. Wimpfheimer went on to say that the South must not become a refuge for industrialists seeking competitive advantage through low wages. In other words, Clarence Wimpfheimer bought himself a bad deal he can't get out of, and so he wants everyone else to jump into the same mess he is in. He said, further, that:

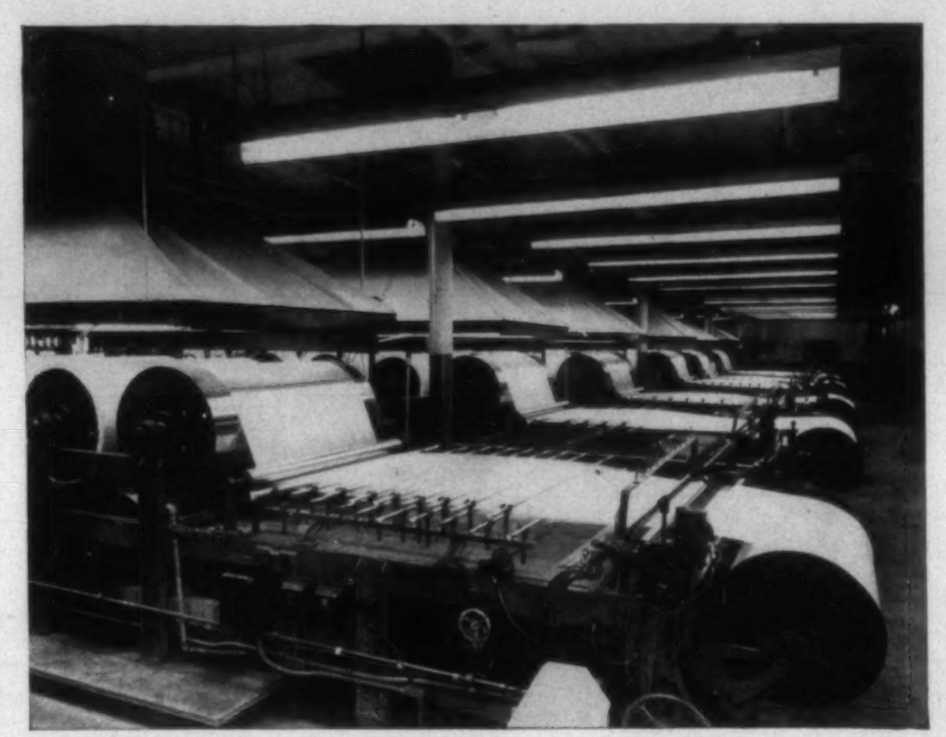
> I am sad and also mad that George Baldanzi, an old friend of both union and company, is absent from our dinner tonight, and I am ashamed of the reasons why. As you know, he was invited to be here with us this evening, and he said only a very bad situation in the South could keep him away. Perhaps it is time that we understood just why men like George Baldanzi and Emil Rieve can't call their souls their own in the South today. It is a combination of employer opposition and worker apathy. The workers stay out of the union by droves—they just aren't interested.

Amen, Clarence.

A trade directory lists American Velvet Co. as operating 210 looms on plushes, velvets and casket cloths. Maybe the last product is what gives Clarence his glum attitude. At any rate, Clarence, you are being trite. We've heard tales similar to yours from other New England personages. As cited above, the index of weekly earnings in Southern mills has advanced from 100 in 1939 to 370.6 in October of 1950; by using the same Department of Labor statistics, Clarence, we find that the index of gross weekly earnings in Northern mills has advanced during this same period from 100 to only 331.0.

You can mouth around all you want to about how much the Southern mills need to be organized, Clarence, but the simple fact is that management down here doesn't want the union telling it how to run the mills, and the workers themselves don't want the union either, because *they* feel that they are getting along pretty well.—*McA.*

Investment by Robbins Mills in



JOHNSON WARP SIZERS

Has Been Steady Since 1935

1935	Robbins Mills installed their first Johnson sizer in 1935 when the company was called Pinehurst Silks and the town, later called Robbins, was known as Hemp, North Carolina.
1939	In 1939 the first of the six Johnson sizers shown in the picture was installed in Robbins Mills plant at Red Springs, North Carolina.
1948	In 1948, at their Aberdeen, North Carolina, plant a further Johnson sizer installation was made, and Johnson sizers are being installed in the new Robbins plant at Raeford, North Carolina.
1951	Only Johnson sizers are used in these Robbins plants—good evidence of trouble-free service rendered to a concern whose standards are high and whose requirements are exacting.

We are always glad to answer questions about our sizers.

Charles B. Johnson
PATERSON NEW JERSEY

Southern Representative: T. E. Lucas Associates, Inc.
Charlotte 1, N. C.

Picker Repair Parts . . . *Quickly*

We keep in stock for prompt shipment all parts for Kitson pickers as well as those of our own manufacture. For years we have shipped practically all repair part orders within 24 hours from the receipt of the order.

Most of our customers keep few, if any, picker repair parts in their stock rooms, but depend on our stock for service. This will be particularly desirable during the war emergency, when one large, available stock of parts can take the place of hundreds of incomplete stocks which would tie up a great deal more critical materials than the one large stock.

Our hundreds of regular customers are familiar with our service and depend on it. To those who are not our customers, we extend a cordial invitation to come to us in any emergency in the picker room.

We manufacture a complete line of picking, opening and blending machinery, and also rebuild like new old machines which are in need of replacement.

AldricH MachinE WorkS

Greenwood, South Carolina

textile bulletin

VOL. 77 MAY, 1951 NO. 5

The International Textile Exposition

By DAVID CLARK, Editor

I ATTENDED the International Textile Exposition at Lille, France, on April 30, May 1 and May 2 and planned to return there May 8 for three more days. The International Textile Exposition is an immense project about equally divided between textile goods and textile machinery. It was scheduled to run from April 28 to May 20, and there are no definite plans for another exposition within ten years. The attendance of visitors began at about 15,000 per day and is expected to exceed 1,000,000. The buildings cover about 2½ acres with the principal building devoted exclusively to exhibits of textile goods by mills and by finishers. The building is 600 by 600 feet and is said to be the largest building in Europe without internal posts or supports.

The French have long been leading designers of textile fabrics and they are exhibiting a remarkable display of dyed, finished and printed fabrics. The same also applies to Italy, Switzerland, Belgium, Germany and other countries.

Behind the main building are three buildings forming a "U" and intended for textile machinery exhibits, but a portion of one wing is used for the overflow of exhibits of textile fabrics. The exhibits of textile machinery are about ten times as large as those at the big American Textile Machinery Exhibition in 1950. Every country in Europe manufactures textile machinery and there was also machinery from Japan and the United States. I had no idea that so much textile machinery was manufactured in Europe.

In a later story I will describe some of the most interesting machinery, especially the circular looms, but there are too many exhibits for me to attempt to describe them and in most cases they do not have English-speaking representatives and cannot give me the necessary information.

A number of American textile machinery builders have space in the International Textile Exposition. Crompton & Knowles Loom Works and Whitin Machine Works divided a large space. Saco-Lowell Shops does not have any moving machinery, but did show models of its long-draft system. Draper Corp. had an excellent booth with several looms in operation. One of the most interesting features of the Lille show was that almost every country had displays of automatic looms of the Northrop type, but none of them appeared to be operating as smoothly or efficiently as Draper looms. Until recently, labor unions in England and Europe would not permit weavers to operate more than six looms and in some cases not over four, but we were told that the unions are now permitting weavers to run 20 looms and that automatic looms are coming into general use. Armstrong Cork Co. and the Foxboro Co. had a joint exhibit. Tompkins Bros. showed two large circular knitting machines. Other exhibitors known in the American textile industry were Universal Winding Co., Morrison Machine Co., Dronsfield Bros., Platt Bros., and Foster Machine Co. Foster's exhibit was arranged by its European agents, Muschamp Taylor, Ltd.

Those whose feet have become tired walking the cement and board floors at the Southern Textile Exposition will applaud an idea which is in use at the International Textile Exposition—a specially-woven jute covering for all aisles. It gives a cushion instead of a hard surface and greatly reduces the foot and leg strain.

Those who have complained about lack of hotel facilities at Greenville, S. C., should try to get a room at Lille. With only two hotels and an exposition 20 or more times as large as the Greenville show, it was absolutely impossible to get a hotel room and almost equally impossible to get a room in a private residence. Fortunately, going over on the Queen Elizabeth with us was Oliver Landis, the textile mill supply agent of Charlotte who is looking for some additional lines to handle. Mr. Landis had a cousin who had married a very prominent and highly regarded cotton broker, Auguste Brabant (pronounced "Bra-ba") of Lille, France, in 1919 when he was spending some time as a cotton buyer at Memphis, Tenn.

Mrs. Brabant and her two daughters were visiting at Memphis and when Oliver Landis telephoned Auguste Brabant and asked him to get hotel rooms for us he advised that it was impossible but insisted that the three of us stay at his home. Auguste Brabant was a most gracious host and we greatly enjoyed his hospitality. He now represents Weil Brothers and is well known to many American cotton dealers and probably to some cotton mill men.

When we return to Lille on May 8 we are to be the guests of Andre Lemaire at his home in a suburb of Lille. Mr. Lemaire operates a very large woolen mill and has been a very large purchaser of Crompton & Knowles looms. He said that any friend of Crompton & Knowles was a friend of his and insisted upon our staying at his home. He speaks excellent English but his wife speaks only French.

We expect to meet at Lille on May 8 Malcolm E. (Sandy) Campbell, head of the School of Textiles at North Carolina State College and together we expect to fly to Oslo, Norway, where there are a dozen or more young men who are graduates of the School of Textiles at State College and are now operating cotton or rayon plants in Norway. Sandy Campbell plans to take a very interesting trip to Norway with some of his former pupils.

When we go back to Lille on May 8 we expect to find Dean Hugh Brown of the School of Textiles at Clemson College, Will J. Still of the Borden Mills at Kingsport, Tenn., W. B. Shuford of the Shuford Mills, Hickory, N. C., Oliver Rowe of R. H. Bouligny & Co., Charlotte, and probably others from the United States.

If the cotton mill men in the South had been aware of the size of the show and diversity of the textile machinery to be shown a great many would be here, but it is too late now as the International Textile Exposition ends on May 20 and there is no certainty that there will be another in ten years.

When I go back to Lille, I intend to make a study of some of the more novel and interesting of the machines shown. All foreign textile machines seem to have many extra parts and to be very complicated. Men who know say that when it comes to the production of yarns and goods at low costs and minimum of repairs, American machinery cannot be beaten.

Mr. Clark's initial report on the Lille Exposition was sent from Paris early this month.

"DACRON" Polyester Fiber

By DR. L. L. LARSON, Manager, Du Pont Co. Nylon Division Sales Development Section

IN THE short span of 150 years, the textile industry has grown tremendously and its make-up has changed very significantly. The really basic change has occurred in our own lifetime with the introduction of rayon, nylon, the acrylic fibers, Vicara, and now "Dacron" polyester fiber. Let us take a moment here to see how the chemist distinguishes between the nylons (polyamides), polyacrylic fibers, and polyester fibers. We know from experience that nylon, "Orlon" acrylic fiber, and "Dacron" are different with respect to flexibility, resilience and stiffness. These differences can be explained by the nature of the building units making up individual fiber molecules. To illustrate these differences in properties, we can draw an analogy to woven fabrics. In these hypothetical fabrics, the warp ends are the long-chain fiber molecules and the filling picks are the forces which for simplicity we shall call electrical bonds between adjacent long-chain fiber molecules.

In the warp of our nylon hypothetical fabric, nylon molecules are light, flexible building blocks bound together at fairly long intervals by electrical bonds. So the "fabric" is flexible, soft and elastic. The "Orlon" acrylic fiber hypothetical fabric represents a configuration in which the molecules of "Orlon" are bound together at shorter intercals because of the initially smaller building blocks used to make "Orlon" polyacrylic fibers. This hypothetical fabric then has a greater number of picks and higher construction —so "Orlon" is fairly stiff and resilient.

The "Dacron" polyester fiber hypothetical fabric shows that building blocks of "Dacron" are comparatively heavy, stiff, and resilient, and they are bound together in about the same manner as nylon. The stiffness here is produced mainly by the larger cross-section of the individual molecules which contain benzene rings and makes the fiber resist bending and also creates more rapid recovery from bending. Stiffness and resilience are put to use in "Dacron."

The ground work for the development of "Dacron" was laid by the late Dr. W. H. Carothers, famed Du Pont research chemist, in his work with high polymers. Polyesters were among the first of the condensation polymers investigated by Dr. Carothers. Rather than continue with an exhaustive study of polyesters, Dr. Carothers elected to devote the major portion of his efforts to polyamides—a course which resulted in the development of nylon.

British research chemists of Calico Printers Association, Ltd., after studying the published works of Dr. Carothers, initiated a further study of polyesters. Their work led to the development of a polyester fiber now known in England as "Terylene." Independently, Du Pont researchers had undertaken a search for other useful condensation polymers expanding the early work of Carothers. Shortly thereafter, Du Pont learned about the researches of the British chemists and ultimately negotiated for the purchase of patent rights then owned by Calico Printers Association, Ltd., specific to the polymer selected by them for development. This polymer, a condensation product of ethylene glycol and terephthalic acid, is the polymer from which "Dacron" polyester fiber is spun.

The chemists were convinced from their tests on the first few fibers of "Dacron" that they had within their grasp a very resilient fiber. This confidence on the part of the researchers has been substantiated by thorough-going market evaluations conducted over the past two years. The market studies have demonstrated that "Dacron" has a combination of properties of real value to the textile industry. Consequently, the Du Pont Co. decided to construct a plant at Kinston, N. C., for the production of "Dacron" polyester fiber and staple.

The annual capacity of the plant is to be rated at 10,000,000 pounds of continuous filament yarn and 25,000,000 pounds of staple and tow. This plant is scheduled to be in operation in the Spring of 1953, although this date is entirely dependent upon the procurement of materials. At the present time a pilot plant at Seaford, Del., is supplying a significant poundage of yarn, staple and tow for market evaluations by the textile industry.

The most natural outlet for "Dacron" polyester fiber appears to be in suitings and all types of outerwear. The contributions of "Dacron" to suitings are: excellent appearance—color, drape, tailoring qualities; wrinkle resistance and press retention—wet, moist or dry; dimensional stability; launderability without shrinkage or wrinkling; and economy.

It is fundamental that garments have aesthetic appeal. This means ability to be dyed to a complete range of attractive shades, to have good tailoring qualities, good draping properties, and satisfactory fabric texture. Suiting fabrics of "Dacron" meet these requirements.

Resilience is a keynote of a good suiting fabric. Resilience is the keynote of "Dacron," just as resilience is the keynote of wool. There is a fundamental difference, however, between the resilience of the two fibers. This difference is demonstrated by the property of "Dacron" to maintain its high resilience in moist or wet conditions. Under dry conditions, "Dacron" polyester fiber and wool have essentially the same initial crease angle. We have found that this initial crease angle is a good indication of the liveliness of a fabric. At 90 per cent R.H. the crease angle of "Dacron" is unchanged while the wool fabric included in this test decreases significantly. Now under wet conditions, the crease angle of "Dacron" remains essentially unchanged whereas the crease angle of the wool fabric drops greatly.

High wrinkle resistance and press retention under wet as well as dry conditions have a profound significance in actual wear. First of all, a suit of "Dacron" is unaffected (aside from getting wet) when a wearer is caught in a rainstorm. After drying, the suit of "Dacron" looks just as it did before it became wet and does not need pressing. As we all know, suits of wool or rayon that have been out in a rainstorm must be pressed before wearing again. The ability of suits of "Dacron" to be worn in rain without wrinkling is meaningful, but the real value of high resilience under moist or wet conditions comes in humid weather. The performance last Summer of suits of "Dacron" polyester fiber in comparison with representative tropical suits, both worsteds and rayons shows a decided advantage for "Dacron." Actually the controlled test of performance embraced 20 wearers, each of whom had a suit of "Dacron" polyester fiber and a control suit. In every case the suit of "Dacron" outperformed the control suit. All of the suits of "Dacron" were from a 7.8-oz. per 54-inch yard fabric, while the control suits ranged from 9 to 11-oz. per 54-inch yard. It should be noted that the high strength of "Dacron" makes fabrics of lighter weights practical.

Resilience is fundamental in Winter suits as well as in Summer suits even though the effect is less dramatic in the colder and drier days of Winter. A year-round suiting made on the woolen system that also showed good wrinkle resistance and crease retention was made from a fiber blend of 60 per cent "Dacron" and 40 per cent wool. I am sure you are asking whether these winter-weight fabrics are warm. The only answer we can give to this question at this time is that the wearers were comfortable in these suits last Winter, and rated them essentially the same in warmth as other suits of comparable weight and construction.

Manufacturers of Summer suits have been seeking a solution to the problem of puckering and fabric movement that is caused by subjecting garments to high humidities, and also puckers and shrinkage that occur at times in cleaning operations. "Dacron" polyester fiber is one of the new fibers that promises to be a practical solution to these problems of dimensional stability in wearing and in cleaning.

Fabrics of "Dacron" are not only stable to changes in relative humidity, but also they are stable to washing as well as to dry cleaning. Our laboratory tests showed a 7.8-ounce tropical of "Dacron" shrank less than one per cent when washed eight times at 140° F.

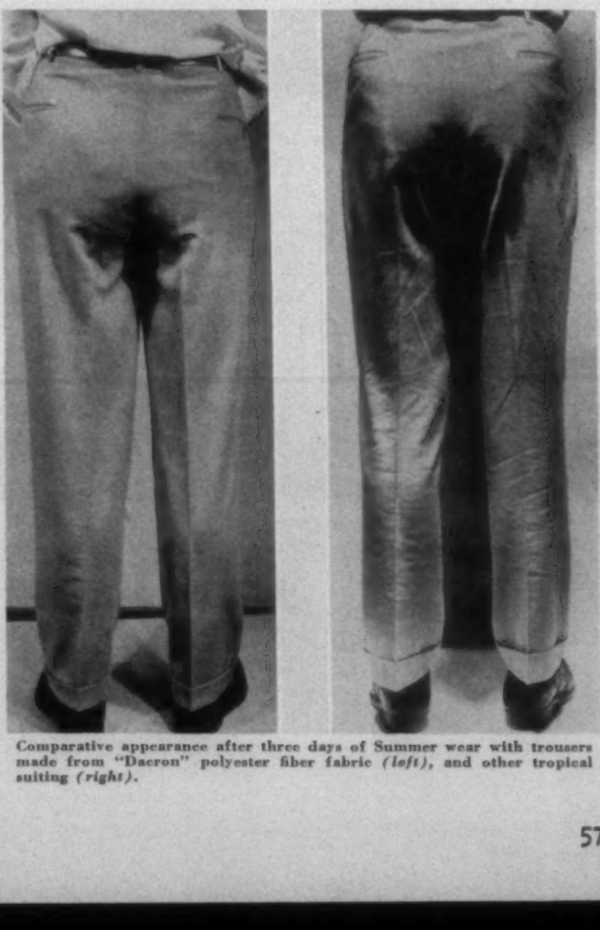
Properties of high wrinkle resistance under wet as well as dry conditions, ability to keep a nice, sharp crease almost indefinitely, dimensional stability under the varying conditions of wear, washability and easy spot removal, together with the good strength and abrasion resistance of "Dacron" polyester fiber add up to economy to the owner. From the data given under abrasion resistance, we would expect the suits of "Dacron" to have good wear life. This is being confirmed in our wear tests. We have a suit made from a 7.5-ounce tropical fabric of "Dacron" that has been worn 250 days. It shows practically no signs of wear after 250 days of hard wear. The suit has been dry cleaned five times and in addition, the trousers have been washed ten times.

'Dacron' Polyester Staple in Blends

My outline of properties of "Dacron" clearly teach that this fiber stands ready to take its place as an important outerwear fiber. "Dacron" is not, however, the all-purpose fiber of the textile world. While this new fiber will be used alone in outerwear, it will also contribute significant functional properties in blends with other fibers. In this way each fiber will be engineered to make its particular attributes most effective.

For example, considerable work has been done with blends of "Dacron" with wool and with rayon. We have many suits to represent examples of classes of fabrics utilizing "Dacron" polyester fiber. The maximum resistance to wrinkling and crease retention under hot, humid conditions is illustrated by a suit of 100 per cent "Dacron." Improvement of the wrinkle resistance and dimensional stability of worsted suits under hot, humid conditions is represented by a suit made from a blend of 50 per cent "Dacron" and 50 per cent wool. For suits of lower cost that give satisfactory performance, we recommend a blend of "Dacron" with rayons or cotton.

The first commercial suiting fabric from "Dacron" was made just about one year ago. We are proud of the progress that has been made to date by the manufacturers of yarn, fabric and garments. However, we all realize there is still a lot of work to be done. For example, we need to learn more and more about ways to overcome pilling. In one suit of "Dacron," pilling was minimized by high



Comparative appearance after three days of Summer wear with trousers made from "Dacron" polyester fiber fabric *(left)*, and other tropical suiting *(right)*.

twist in the yarn, tight construction of fabric, and the use of sanding, shearing and singeing in the finishing operation.

All of the new fibers seem to have their dyeing headaches, and "Dacron" is no exception to this rule. A good job can, and is being done, as can be seen from all of the suits we have had produced, but the job of dyeing is by no means easy. Special techniques, such as the use of selected dyeing assistants and dyeing for long periods at the boil are required. Light fastness of the order required for specific end uses has been obtained. Furthermore, dyestuff and procedure developments now in progress promise very outstanding light fastness in a complete range of colors. Also, wash fastness of dyes is generally excellent on "Dacron." The dye is hard to get on, but once on, it is hard to wash off.

Markets

Thus far, we have been illustrating some of the most outstanding functional properties of "Dacron" which are of particular importance in suitings. Aside from the natural potential of "Dacron" in suitings, topcoats, slacks and overcoatings, let us now take a brief look at other potential markets and at the same time bring in other functional properties of "Dacron" that appear to be of value to the textile industry.

One of the outstanding properties of knitting yarns of "Dacron" polyester fiber is excellent elastic recovery which promotes good shape retention in sweaters and hose. The knitting yarns are also characterized by a warm and lofty texture. In general, it may be said that fabrics, knitted or woven, of "Dacron" have a pleasant textural hand.

"Dacron" will find markets not only as a staple in suitings, overcoatings, sweaters, hose, etc., but as a continuous filament yarn it will also find an outlet in many markets because of excellent functional properties. The very same properties of wrinkle resistance, economical maintenance, and dimensional stability that are making "Dacron" polyester fiber outstanding in staple applications are also making it stand out in continuous filament fabrics.

The most important functional properties that "Dacron" is contributing to blouses, shirts, dresses, ties, lingerie and other wearing apparel are muss resistance, neatness of appearance through continued wear, and ease of keeping fresh and neat in appearance. Women are learning that the "go home" appearance of a blouse of "Dacron" is essentially the same as the "come to work" appearance. They are also learning that the blouses require little or no ironing.

"Dacron" polyester fiber is proving out well in industrial products as well as in wearing apparel. In fire hose, the high tenacity and high stretch resistance of "Dacron" are utilized. Fire hose fabric made with a conventional cotton warp and a filling of "Dacron" is in comparison with a conventional cotton warp and filling hose, 50 per cent stronger, 20 per cent lighter, smaller in diameter, and more flexible.

V-belts and ropes also utilize to advantage the high tenacity and high stretch resistance of "Dacron" polyester fiber. In laundry nets the high bleach resistance of "Dacron" is proving important, and in laundry press cloths the high heat resistance of "Dacron" offers a valuable functional property. Sail cloths of "Dacron" demonstrated their value in the Bermuda races last Summer. Here "Dacron" was employed because of high strength and stretch resistance, little "come and go" with changes in relative humidity or rain, and good resistance to rot and mildew when stored under wet conditions.

Curtains of "Dacron" are characterized by luxurious texture, dimensional stability with changes in relative humidity, ease of washing, the need of little or no ironing, and good resistance behind glass to degradation by sunlight. Sewing thread of "Dacron" is characterized by high stretch resistance, high strength, dimensional stability in wearing and washing, and good durability. Garment manufacturers are learning that this new sewing thread gives good sewing efficiency and performance; it is operated on standard sewing machines with a minimum of adjustments, and seams of this new thread have good appearance.

In summary, distinctive functional properties of "Dacron" are high wet and dry resilience, dimensional stability under wet or dry conditions, high stretch resistance coupled with high strength, high bleach resistance, and high heat resistance. Market evaluations have demonstrated a wide variety of end uses where this new fiber is ready to improve the functional performance of fabrics and give to the ultimate consumer more for his money in ease of care, freshness and neatness of appearance with continued wear, lower maintenance costs and longer life.

Dr. Larson's remarks were delivered May 2 in New York City before a regular meeting of the American Association of Textile Technologists.

Meeting Of Northern North Carolina-Virginia Division Of The Southern Textile Association

APPROXIMATELY 150 members of the Northern North Carolina-Virginia Division of the Southern Textile Association were in attendance April 14 at the Spring meeting of the group held in the Cone Memorial Y.M.C.A. at the White Oak Plant of Cone Mills Corp., Greensboro, N. C. Presiding over the general session was G. R. Ward, superintendent of Highland Cotton Mills, Inc., High Point, N. C., divisional chairman. Following the general session, members of the division divided for the various group discussions.

Guest speaker for the affair was W. H. Neal, senior vice-president of Wachovia Bank & Trust Co. of Winston-Salem, N. C. "My subject," Mr. Neal began, "is 'The Challenge of 1951.' What is that challenge? In all its stark realism it is one thing—the challenge of national survival. That is as plain, as simple, as realistic as I can make it this morning; and you and I know it. It is the challenge of national survival, and it is nothing less. Let us not forget that. As we become engrossed in our daily tasks, as little problems come up here and there, as things happen in Washington of which we are critical, as prices continue to rise and other things happen in which we become engrossed and of which we are so critical sometimes, let us not forget the main thing. Let's step back and see the forest instead of the trees and not forget that the great challenge which faces us today and will face us for years to come is the challenge of national survival, whether we as a people, and our way of life in which we believe, will survive the great threat. I do not analyze the threat. You know what it is.

"A few months ago we thought the threat might come in the form of world war. That is what we thought when our boys were being pushed back in Korea. But now we begin to think it is not all-out war that we face in 1951 but long, bitter, cold war, without breaks here and there, in which we shall have to build the greatest military force this country has ever known and keep it going perhaps for ten years or more. That has come into our thinking in recent months. You do not know and I do not know which of these ideas is correct. We know we are dealing with the Kremlin, and all we have to do is to read what those leaders have said. Just how and when they are going to move they have not said, but they have told us their objectives. Whether it will come this year as all-out war or whether it is to be a long period of sustained military force for us we do not know. But we know it is going to bring about sacrifices, controls, regimentation, disturbances to our way of life, the constant struggle of guns versus butter—that is, how much civilian goods we can produce or how much be sacrificed to produce military materiel. But we must make those sacrifices if we want to continue our existence as a free and independent nation."

In outlining subordinate challenges facing the American people, Mr. Neal named (1) the challenge to the solidity and orderliness of our business structure; (2) increased production; (3) the challenge of inflation; (4) the challenge of national solvency; and (5) the challenge to our freedom from within.

Concerning the challenge of inflation, Mr. Neal declared: "If we let inflation get control in this country and run away it can destroy our economy from within and be almost as destructive as what an enemy could do from within. That is not entirely academic now, but the inflationary forces I have outlined have been considerably reduced in recent weeks. The danger there is that we may become complacent about it and that those in authority will not carry through the controls and other things they can do, and individuals may become complacent about it. Five billions a month of government expenditure is bound to be a stimulating force. That force will continue for many, many months to come.

"What does it all mean? It means that we, as individuals, have to buy with care to save all we can. It means that the government will have to cut down its spending for non-military purposes and tax spending power by excess-profits taxes and in other ways. That will cut down spending power. Then the government has got to apply the controls as equitably and as courageously as possible. The difficulty in a democracy, of course, is that controls such as these are shot through with a sense of expediency and an eye to the next election."

The general session was adjourned following Mr. Neal's address and the group broke up for the sectional discussions. Subjects considered at these discussions were industrial relations; carding; spinning; and warping, slashing and weaving.

Industrial Relations Discussion Group

The industrial relations group discussed the "Foundations for Good Industrial Relations." Discussion leader was George Hamer, assistant personnel director of Cone Mills Corp.

The first step in *good* industrial relations, as pointed out in this meeting, is the establishment of sound company policies. It was agreed that these policies should be put in writing in publications to employees, preferably employee handbooks. General statement of company policy may be used by the employee as reference here.

The group pointed out that supervisory manuals should state definitely the policies of the company, and that these, of course, are meaningless unless followed right by menagement. Management should know the proper interpretation of the policies as written in the manuals.

Another method of teaching company policy to new employees (and old) is that of the small orientation group. A representative of one company now using this method pointed out its success in that company.

Other topics bearing on industrial relations were grievance procedures, exit interviews, personnel assistant's check lists, application blanks and employee benefits.

One member of the group emphasized the fact that the basis of a sound industrial relationship policy is not benefits, but relationships of one man with another. In conclusion the discussion leader summarized what had been said by stating that for good industrial relations a company must have sound policies, must make them known and must live up to them.

Carding Discussion

The discussion on carding problems was presided over by Raymond D. Kincaid of Cone Mills Corp., Greensboro.

The discussion opened with an evaluation of waste control systems. One supervisor reported using the small-size Fiber Meter which he described as an excellent machine. Standards are set up for each machine and weekly records are kept to show how the waste from each machine compares with the standard. All settings on cards and frames are standardized. Employees do not let waste go through in order to keep waste figures down as it is just as bad for them to be over as under.

Queried as to whether anyone had tried re-running card strips, one mill man replied in the positive with the conclusion that it worked very well for coarse work. The chairman remarked that his plant was running 2½ per cent card strips, re-baling them and starting them in at the picker, resulting in more shedding and more ends down.

Regarding trumpets, and sizes used, one mill man reported putting in new trumpets a short while ago and that they helped some, but did no eliminate uneven roving. His plant runs 54-grain sliver and uses a 29 drill hole in the trumpet. In lap back drawing, another supervisor reported trouble with the knock-off motion when changing from white to deep colors. It was suggested that allowing the colored goods to age might help some, that colored stock has more drag than white in going through the trumpets.

Concerning testing for lap evenness, one mill man reported use of the Saco-Lowell lap tester. He establishes a center line for evenness of lap being tested and figures variation from that line regardless of whether it is the center line of the chart. Regarding production from pickers, one mill man reported his plant runs 310 45-pound laps in eight hours on six pickers.

Two supervisors reported covering card scavenger rolls with paper tubes. One stated he tried sharpening the ends of the rolls, but this did not help as fibers tangled about the ends. He fastened the tubes to the rolls, he explained, by forcing them on with a tight fit. Another mill man reported fastening the tubes to the rolls by using glue.

To the chairman's question regarding use of perforated screens under the cards, one mill man reported they cut down on waste considerably, took out more trash and fine sand and that the screen stays in good shape. Another reported using perforated screens only under the licker-in; using the rib type under the cylinder and doffer. One supervisor stated perforated screens were cleaned once a year in his plant while another supervisor preferred cleaning the screens every six months.

Spinning Discussion

The following is a report of the spinning discussion which took place at the Greensboro meeting April 14, and was led by Frank Spivey of the Cone Mills White Oak Plant.

The first subject for discussion was cleaning. One mill reported that its spinners do all the cleaning. The mill has Whitin spinning frames made in '36. This mill has Accotex front and middle rolls and cork back rolls. As the supply of cork rolls is becoming exhausted, Accotex rolls are being put on the back line. This mill does not use any clearers on the middle and back lines of rolls. It uses revolving clearers on the front rolls.

Another mill, which manufactures sheeting, has women workers picking the rolls with a pneumatic roll picker. The spinners run out the guides and clean the rails. All other cleaning is done by cleaning people. The roll picker assignment here is 26 frames per person. Of these frames, six to seven of the frames are cleaned entirely including bottom and top rolls and cradles during each shift.

At the Spring meeting of the Southern Textile Association's Northern North Carolina-Virginia Division were, *left to right:* W. H. Neal, the principal speaker; David A. Purcell, superintendent of the Fieldcrest Mills blanket plant at Draper, N. C., and chairman of the S.T.A. board of governors; Glenn R. Ward, chairman of the division and superintendent of Highland Cotton Mills, High Point, N. C.; Howard Barton, superintendent of the Fieldcrest rayon plant at Spray, N. C., as well as secretary of the division; James T. McAden, Jr., S.T.A. secretary-treasurer and editorial director of TEXTILE BULLETIN; and Clarence N. Cone, vice-president of the host organization, Cone Mills Corp.

Another mill running rayon picks the rolls with the frames standing. The spinners do the picking as a routine part of their job. Frame-cleaning people pick and clean four to five frames per shift.

The chairman stated that some spinners prefer to pick with their fingers, but that roll pickers are very good for the back steel rolls. Two of the mills stated that the underclearers on the back line of rolls were taken out.

A supervisor who has Saco-Lowell long-draft frames asked how the slip roll is cleaned. He stated that he cleaned the slip rolls with the frames stopped. He found that if he took the rolls out while the frame is running, he got thick and thin places in the yarn. This man also stated that he can not get by without the bottom clearers on the back line of rolls. Another mill man stated that he had changed his slip rolls from leather to Bakelite and that on coarse work he cleans the slip rolls with the frame running, but on fine work the frame must be stopped. Another stated that the slip rolls are cleaned on the doff.

In reply to a question about work loads, one mill man said that his spinners run ten sides with the spinner picking her own rolls and doing her own cleaning. They run 12 sides with someone else doing the cleaning. He said that they get better work if the spinner does her own cleaning.

Another mill man said that the weakest spinners are on the third shift and if they do their own cleaning the work will not be of the best. Another man said that he got less slugs and less oil on the stock with cleaning people doing the roll picking. Another man pointed out that frames which are standing don't get cleaned if the spinners are responsible for doing the work.

Another man pointed out that he found it best to have the spinners do their own cleaning on the first and second shift and that if the third shift is running, the spinners are required to do only a little cleaning.

Another mill, which has 40,000 spindles, uses two spare hands to clean the weight hooks, creels, etc. If the spinner gets stuck, the spare hands help her out. In this mill, section men handle the break backs. Another mill man stated that he had 104 warp frames and that he had used spare hands but they didn't work out so he took them off. Another mill man stated that his spinners run eight sides and do their own cleaning. He has no spare hands. The chairman said that he has 216 frames using 11 by $5\frac{1}{2}$ roving bobbins. The warp spinners run eight sides and do their own cleaning on 21s and 30s warp. On filling, the spinners run ten sides on 11s and 13s and eight sides on 6.75s.

Another supervisor stated that he had pickers and cleaners who handle 24 to 45 frames per day. This mill is on 15s to 24s rayon. The spinners run from eight to 16 frames. If they run 16 frames they do no cleaning. This mill has Pneumafil.

Several men discussed different types of winds. The chairman stated that he had trouble with the combination wind. He said that he had trouble with the frames being doffed too close to the top. If it is within one-half inch from the top he got 30 to 40 per cent end breakage at the spooler. His spooler runs at 930 yards per minute.

Oiling schedules were discussed and here are the results: The chairman said that he oiled his front rolls once a day and the back and middle rolls three times a week. Another mill man oiled his front rolls twice a week and his back rolls once a week. Another oils his front rolls three times a week and the back twice a week. The chairman stated that he greases his fans once a week. Another mill man said he oils his back rolls once a week.

The section then discussed changing traverse. One mill man said that he changes his traverse on warp once a week and on filling every two weeks. The chairman said that he changes his warp travelers every 32 hours and his filling travelers once a week. His warp travelers are on 2½-inch rings. Another mill man making 46s yarn changes his travelers every two or three weeks.

Warping, Slashing and Weaving

Cecil Squires, foreman of the weaving department at the bedspread mill of Fieldcrest Mills, Leaksville, N. C., presided as chairman at the discussion on warping, slashing and weaving.

The first subject for discussion was the floating binder. One supervisor reported getting very good desults using the floating binder on the "S" type loom. Others agreed, adding that you can check the shuttle at a higher rate of speed.

Most mill men reported having trouble with the C-4 picking motion. One man reported particular trouble with the pick shaft, which with a heavy package will bend and break after four or five days. He expressed the opinion that with a smaller package it would not cause any trouble. Another reported trouble with loom side patches, but attributed the cause to local conditions in his plant—vibration in the floor.

In discussing battery gauges recommended by Draper for setting batteries, some supervisors reported difficulties with these gauges, but others stated that when set correctly they reduced transfer misses considerably.

In reply to the question "At what speeds do you run X-2 looms?" one supervisor reported running 190 picks on a 46-inch loom. Another reported running 194 picks on a 48-inch loom.

Concerning use of the internal expanding brake and the dry disc clutch, one mill man reported that so far it has worked very nicely. He reported that some transmitter trouble may have been due to improper lubrication. Another stated that he found the new type brake superior to the old type.

Continuing discussion of the Draper loom, the new spring-type crank arm was evaluated. Most considered it an improvement but reported difficulties such as having to keep the tension the same on both sides and breakage of the metal strap that fastens around the frame.

Proper greasing of looms was emphasized. One supervisor reported lubricating transmitter gears twice weekly, craftshaft gears three times weekly, pick motions twice weekly, harness cams twice weekly and let-off motion once a week. Oil on the cloth, however, continues to be a headache.

The new clock spring top, one mill man reported, has advantages over the Lacy top and other conventional harness riggings. However, he reported that the clock spring top is hard on harness cams.

Concerning programs for overhauling dobby heads and rebushing dobby shaft bearings, one supervisor reported that he checked when the loom is out. One of the things on his loomcheck card, he stated, is to check the dobby and if any repairs are necessary make them then. The fixer does the overhauling in his own section. Another reported a slightly different program, leaving the overhauling to a maintenance crew. The maintenance crew takes the dobby head out and puts on another while it is being overhauled.

Regarding hot air slashing, one mill man reported using the Uxbridge method running at 160 yards per minute. Questioned concerning experience with the yarn-wound roll, one supervisor reported using lap on the rolls and another revealed that his plant covered the roll with a wool blanket Still another reported that tubes are very economical and run very well. He cautioned, however, that if not put on correctly it will twist.

Du Pont's $30,000,000 Investment In Research

THE new E. I. du Pont de Nemours & Co. $30,000,000 experimental station on the outskirts of Wilmington, Del., actually offers the interested visitor a view into the future of textiles, plastics and chemicals generally.

To groups of press and scientists present during the official opening of the beautiful station this month, Du Pont offered some idea of what it will produce in addition to what it is producing. And further, via very well-planned series of lectures and demonstrations how the company and the firms they sell to throughout the world go about developing the ideas for new products and then how the product develops.

This vast research center, spread out over 57 acres of what had been nine holes of a golf course, offers an atmosphere of the country club with verdant landscape and beautiful new buildings. Within the 19 new buildings, which comprise one of the largest research establishments in the nation and which houses almost half of Du Pont's research personnel, is the newest in research and chemical equipment. Much of this equipment was designed for specific jobs and is not to be found anywhere else in the world.

Of outstanding interest to textile men is the rayon building, where research and development on all of Du Pont's synthetic fibers are taking place even today. In the heart of this pioneering research laboratory, the press and visiting scientists saw the results of years of heart-breaking work in the development of nylon, Orlon acrylic fiber, Dacron polyester fiber, acetate and viscose rayon.

For the first time, a limited public was invited in to see a detailed display of the various yarns and goods either knitted or woven from these fabrics. On view were fabrics of Orlon specially processed so they won't burn at temperatures as high as 1,400° F. There were synthetic furs made from Orlon, Dacron and the new crimped viscose rayon fiber now known as Fiber E. The furs were amazingly true and desirable.

The newest of the fibers, Dacron, known as Fiber V when it was in the experimental stages, was shown in knitted outerwear, socks and in items which can take advantage of its resistance to stretching and its light weight. For example, fire hose made from Dacron would make it possible to put 40 per cent more hose on a fire truck without increasing the load. New nylon air mail bags being tested weigh nearly three pounds less than ordinary bags.

Miss Grace Fahey, receptionist, under direction of Dr. Edward C. Hermann, research chemist, pours methylene blue over paper treated with "Quilon" stearato chromic chloride to demonstrate water repellency of the compound, developed by the Grasselli Chemicals Department of the Du Pont Co. The upper part of the paper, treated with "Quilon," a water-soluble repellent, remains unstained while the untreated lower portion absorbs the dye.

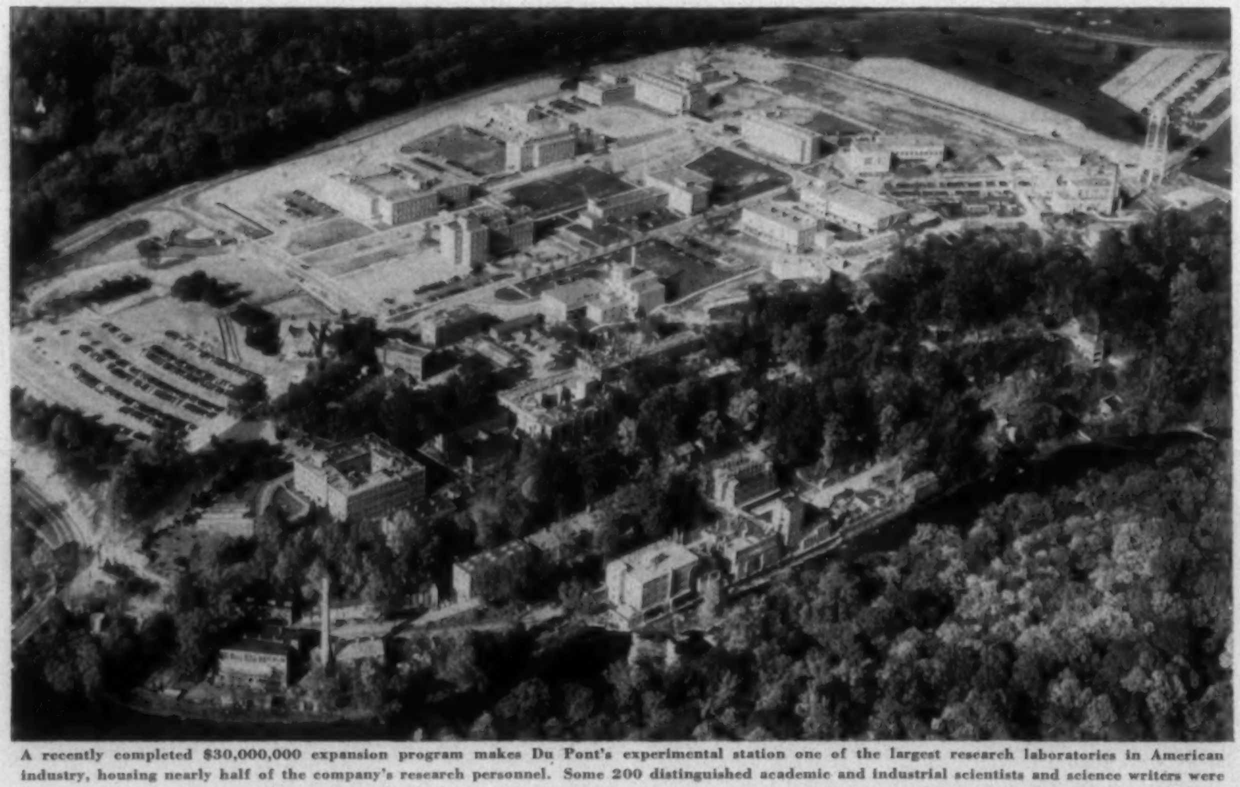
In the Dacron exhibit was the star feature, a man's suit which had been worn 250 days, dry cleaned five times and still was crisp. Also, a well-creased pair of slacks which had been washed ten times and worn 275 days, 40 of them after the last washing and pressing. Also in this exhibit were power belting, filter cloth and sewing thread with remarkable strength.

In the nylon exhibit, designed to show resistance to wear and high strength, were a safety belt for window washers, a parachute, surgical sutures, an infant's snowsuit, football trousers and a commercial laundry bag. The Cordura high-tenacity rayon yarn was shown in high-pressure pneumatic hose, V-belting and heavy duty truck tire reinforcement.

Also of intense interest to the visitors was a laboratory-size machine spinning multifilament Dacron fiber and another demonstrating the stretching of the Dacron yarn. Visitors received as souvenirs men's ties made with Dacron.

During the lecture period, a representative of that department presented a fairly technical discussion on the three basic steps in fiber synthesis and of the structures and arrangements of molecules which give the Du Pont synthetics their distinctive qualities. After the lecture, five young women employees modeled gowns of the various fibers to show the beauty which can result.

In the Grasselli Chemical Department, visitors were told about a new development of Quilon, a water repellent that dissolves in water, now used in the manufacture of water-repellent paper. Another exhibit was on titanium tetrachloride, a key chemical in the production of titanium metal and Erifon, the latter a flame retardant especially adaptable for



A recently completed $30,000,000 expansion program makes Du Pont's experimental station one of the largest research laboratories in American industry, housing nearly half of the company's research personnel. Some 200 distinguished academic and industrial scientists and science writers were asked to be on hand for the dedication of the addition May 10. During the expansion, nine new laboratory buildings and 11 new service buildings were erected. In addition, two buildings were substantially enlarged and a clubhouse for employees was made into a cafeteria. Most of the new construction was in the open area near the top of the picture. The older section of the station borders historic Brandywine Creek near where the company started in business in 1802.

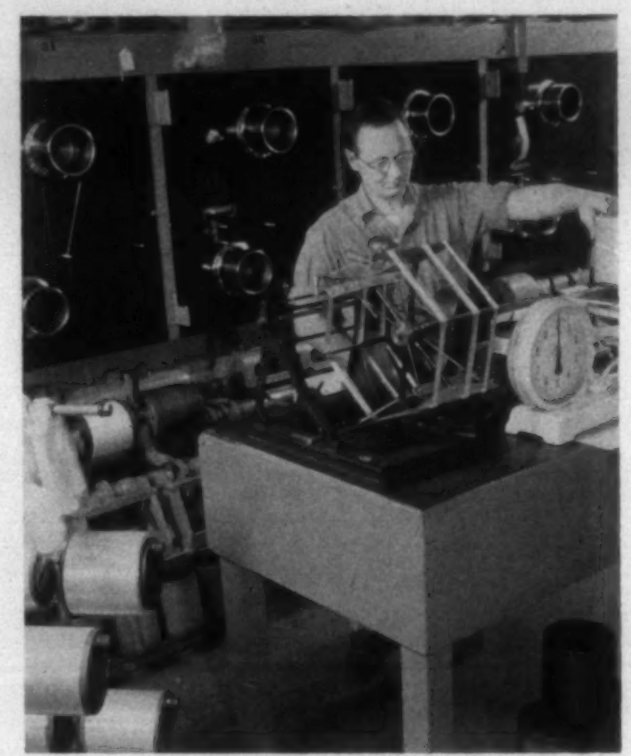
cotton and rayon textiles which becomes a fundamental part of the molecules. Erifon also adds 15 per cent to the weight of the fabric. Basically, it was explained, when the solution is properly applied on cotton or rayon cloth, an amorphous mixed oxide is bonded chemically to the fabric producing flame-resistance that withstands laundering and dry cleaning and which does not affect the hand of the fabric. A chenille robe and heavy-pile drapery materials were displayed for inspection. Erifon, however, is not available for civilian use at this time, since most of it is sold to textile finishers who are making Army tenting material, it was explained.

Before the tour of the 19 buildings on the station, visitors saw the first public showing of a new color film built around the development of Orlon, but designed to illustrate basically the purpose of the new Experimental Station. A dinner May 10 at the Hotel Du Pont climaxed several days of tours, with Dr. James B. Conant, president of Harvard University, and Crawford H. Greenewalt, president of Du Pont, as the main speakers.

Mr. Greenewalt declared that as long as science remains free to accumulate new knowledge, it will contribute to the strength and defense of the nation and to the welfare of everyone. He said it is important that we make our own country as self-sufficient in pure science as it has become in industrial research. "The financial necessities of some of our universities appear to have driven them more and more into the field of sponsored applied research," he said. "This is an unfortunate trend, and I consider it to be one of industry's responsibilities to help reverse it." Another speaker was Dr. Elmer K. Bolton, director of the firm's chemical department.

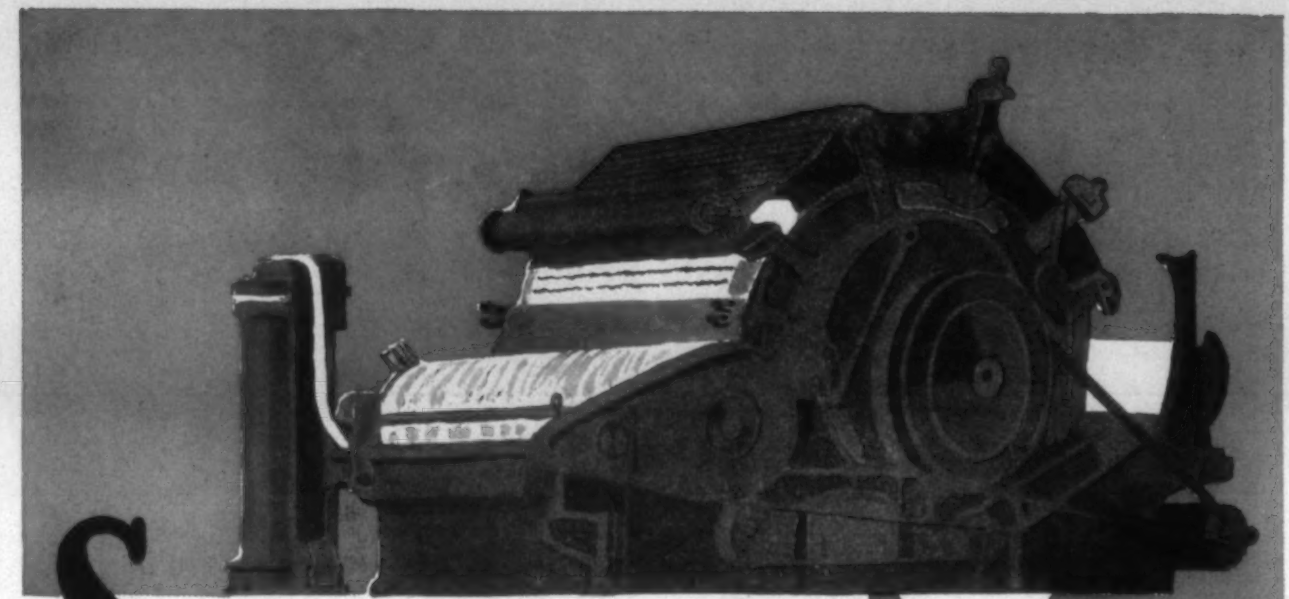
A.C.M.I. Parley Slated May 15-17, 1952

The third annual convention of the American Cotton Manufacturers Institute, Inc., will be held at the Haddon Hall Hotel, Atlantic City, N. J., May 15-17, 1952, it was announced by Charles C. Hertwig, president. Atlantic City was selected, members were told, because it is located about midway between the Eastern and Southern divisions of the industry. Reservations will be made on the blanks usually supplied by the institute several months prior to the meeting.

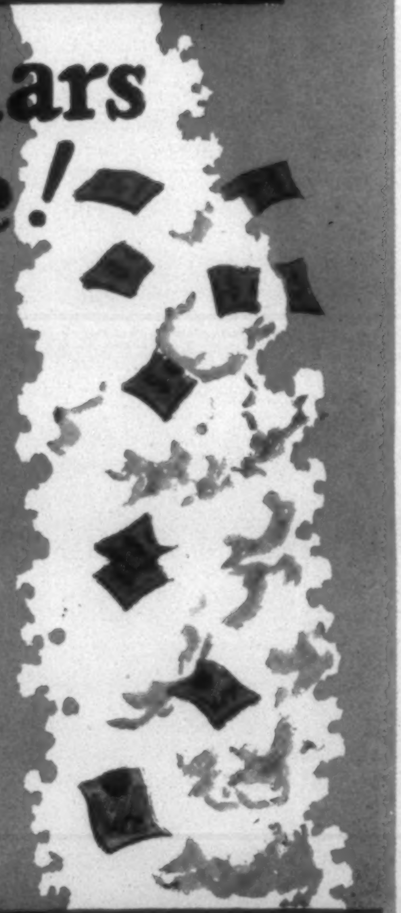


Test runs of new experimental fibers are made with this equipment at the Carothers Laboratory at the experimental station of the Du Pont Co.

Research directors of the Du Pont Co. guide the research work of the departments. Here in a rayon laboratory, Physicist Jack Ballou *(in shirt sleeves)* explains to them the use of unique "iron lung" in basic studies on fabric comfort. His audience with department affiliations are, *left to right:* Lawton Burrows explosives), Max Goebel (Grasselli), George Graves (F. & F.), John Beekley (Polychemicals), Winfield Heckert (rayon), Thomas Chilton (engineering), Frank Signaigo photo products), John Brill (film), John Foulger (service), Paul Austin (electrochemicals), James Booge (pigments), Merlin Brubaker (chemical), and Harold Elley (organic chemicals).



Stop Losing Dollars in Card Fly Waste!

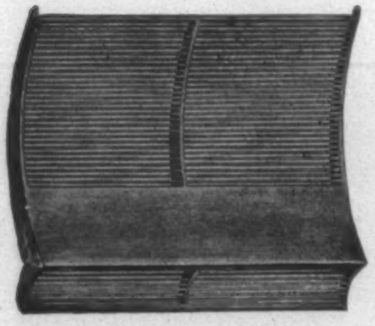


If you're finding good spinnable staple mixed in with the moats and trash under your cards, it's time you installed *Jenkins Card Screens.*

Jenkins card screens are engineered to set closely to your cylinder. Absolute uniformity in every part makes possible the perfect settings—impossible with inferior or damaged screens—which prevent excessive air current from blowing good staple into fly waste.

Improved grooving and patented grid bar construction, developed and used exclusively by Jenkins, assure you of maximum screen efficiency. Jenkins manufacturing and rebuilding service is backed by 37 years of experience, fully guaranteed.

You don't *have* to put up with costly, continuous waste under your cards. Why not talk to a Jenkins representative about it?



JENKINS

ENGINEERED PRODUCTS

JENKINS METAL SHOPS • GASTONIA • NORTH CAROLINA

Opening, Picking, Carding & Spinning

Controlling Waste Along With Neps

By ELLIOT B. GROVER, North Carolina State College School of Textiles

A GREAT DEAL of attention has been paid to the cause and cure of neps in cotton yarn, with the greatest stress placed on the conditions of operation and setting of the cotton card, inasmuch as the card has seemed to be the one operation in which there seemed to be great possibilities for control of neps. This is as it should be, for a real problem has existed in the processing of cotton relative to neppiness. The problem is one that has been worked on here by our research staff at the School of Textiles for some time, and it is one that has been worked on by the industry for years. It is our belief that with the attention that has been focused on the nep problem recently, not only here but everywhere in the cotton industry, the means of improving quality by nep control have been enhanced a great deal.

Closely associated with any work on nep control, not only at the card but in the opening and picking as well, has been one of the factors of prime importance to quality; this factor is the control of waste. It seems to be more or less a fact that whenever any move is made to change processing conditions to control neps, immediately the allied problem of controlling waste arises. Furthermore, it often seems that those changes that improve neppiness raise problems as to waste losses. Conversely, when it is attempted to increase the processing of cotton in order to take out more of the extraneous materials, usually there is a tendency for overworking which results in nep formation. It is for this reason that it is very difficult to separate a study of neppiness from that of waste.

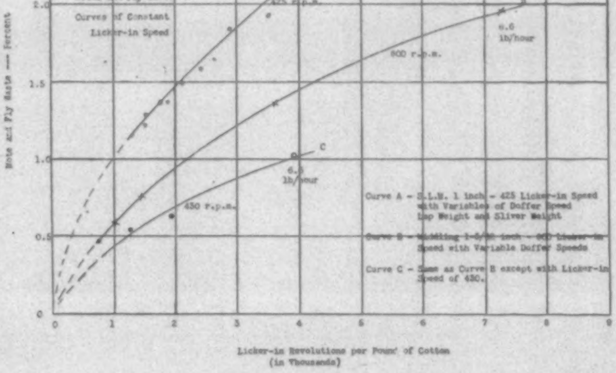
We have been interested for some time in the waste removal at the card. More particularly, it is our intent to show what happens at the licker-in. The reason for this is obvious; we have found some interesting relationships between licker-in speed and yarn quality as explained earlier. Furthermore, some of the mills that have done experimental work of their own with changed conditions have found changes in waste that may or may not be detrimental to their organization from a cost point of view. We believe that there are possibilities of controlling the waste removed at the licker-in by mechanical means; but as a background for experimental work, it has been necessary to analyze just what happens under the different conditions of speed and production. There are usually three variables or items that are involved, and these are licker-in speed, the rate of production of the card, and the amount of waste removed. There are additional variables that influence the amount of waste, such as the mote knife settings, type of screen, type of licker-in wire, etc., but we are going to consider those as all constant in this discussion inasmuch as we have tried to maintain these conditions the same throughout the test work. It is difficult to express all these concepts in variables easily, just as it is difficult to decide what extent of waste removal is beneficial and when waste removal becomes detrimental.

Textile Quality Control Association

LAST MONTH marked official organization of a new industry group, the Textile Quality Control Association. The group was formed April 13 at Raleigh, N. C., with the following objectives: (1) utilizing to the fullest the new devices now on the market as aids in controlling quality; (2) study of new techniques in processing; (3) "more generous" exchange of practical ideas for the "general upgrading of the textile industry;" (4) more efficient use of raw products now available to the industry; (5) increased knowledge of raw materials as to their potentials and characteristics; and (6) new control methods that will give "positive quality assurance to the customer."

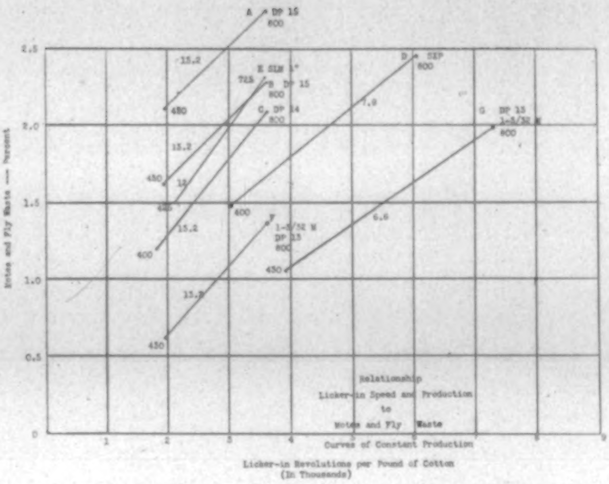
Clyde Moss, quality manager for Firestone Textiles at Gastonia, N. C., was elected chairman. Other officers are Francis H. Martin, research director for Springs Cotton Mills at Lancaster, S. C., vice-chairman; George E. Archer, sales engineer for Uster Corp. at Charlotte, N. C., treasurer; and W. A. Thomason, Jr., of McGraw-Hill Publishing Co., Charlotte, secretary.

By way of analysis, we have plotted the percentage of mote and fly waste against a unit which we calculate from licker-in speed and production rate; these units are revolutions of licker-in per pound of cotton processed. Actually, thousands of revolutions are used in order to simplify the values. Using these two units; i.e., the revolutions in thousands per pound and the per cent waste, it is possible to make plots or graphs in which actually three variables are considered. The first figure contains three curves based on data from experimental work here, and these three curves



illustrate this concept. The curves in each case represent the values for waste and impact for a given licker-in speed. Curve A represents for a licker-in speed of 425 r.p.m., the results for different rates of production which were attained by changing not only the doffer speed but also the lap weight and the sliver weight. The other two curves are for a higher grade of cotton with curve B showing the waste removal at 800 r.p.m. licker-in speed, whereas the lowest curve, marked C, is for the same cotton with a 430 r.p.m. licker-in speed. The rates of production are low at the right extremities of these curves; progressively higher as you follow the curve back toward zero origin. One of the interesting features of these curves is that if it is wished to maintain a given level of waste for some particular type of cotton, it is possible to predict the rate of production for any given licker-in speed; or, if it is desired to predict the amount of waste that would be produced at any given licker-in speed and production rate, that can be done. We find these curves take on the same shape for different varieties of cotton, and other experiments demonstrate this. The curve will be, of course, higher or lower depending upon the grade of the cotton and the licker-in speed. It is also possible to see why licker-in speed can be beneficial in carding, for it is possible to get the same beating effect with high production and high licker-in speed as it is with low production and low licker-in speed.

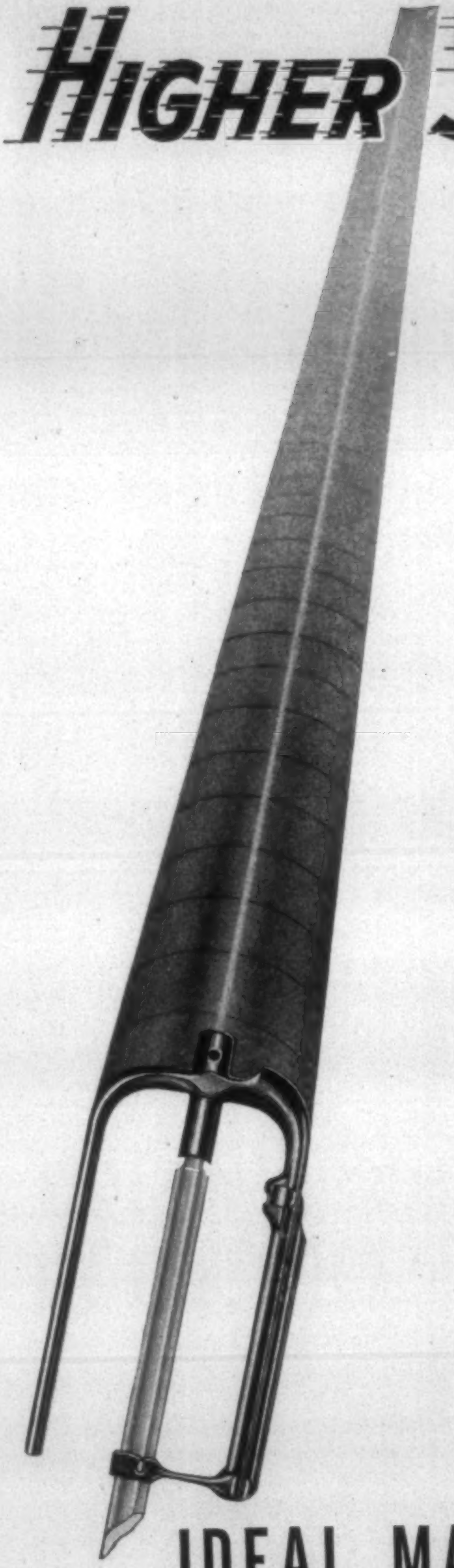
A second set of curves have been prepared which show the relationship of the same three variables, but the production for each curve is at constant level. Actually, on this chart the values of the waste and impact have been plotted for licker-in speeds of 400 (to 430), and for speeds of 800, and the two points joined for convenience with a straight line. (The straight line is not correct, but approximates the rates of change.) Thus, each line is for a constant rate of production, and illustrates the increase in waste as licker-in speeds are increased. The slopes of the curves are very similar; the level of the curves depend on the grade of cotton, prior opening, etc. The two lower curves are for the same conditions as curves B and C in first graph.



The third chart indicates what happens to the total card waste with changes in card production under different licker-in speeds. We have assumed, in our own thinking at least, in the past that as card production is increased, that the total amount of waste removed at the card decreased percentagewise. Obviously, there would have to be an eventual leveling off of this decrease, but in the usual range of speeds at which the cards are run, we have not been able to predict anything except a gradual reduction in the total waste removed with this increase in production. However, in analyzing some of the new information that has come out as a result of our tests with extreme rates of card production, we have found that as you exceed the usual limits, there is an increase in the amount of waste being removed. The information as shown on this third chart is not entirely conclusive, as more experimental work should be performed before making too many predictions. However, the two

Participating in the organizational meeting of the Textile Quality Control Association were, *left to right:* P. W. Woodruff of Erwin Mills, Inc., Durham, N. C.; George Archer of Uster Corp., Charlotte, N. C.; W. E. Crooks of Celanese Corp. of America, Rome, Ga.; Clyde Moss of Firestone Textiles, Gastonia, N. C.; Francis H. Martin of Springs Cotton Mills, Lancaster, S. C.; R. J. Cheatham of the Southern Regional Research Laboratory, New Orleans, La.; Ivan Feng of the North Carolina State College School of Textiles, Raleigh; and R. Hobart Souther of Cone Mills Corp., Greensboro, N. C.

HIGHER SPINDLE SPEED



WITHOUT VIBRATION

. . . Due to the EXTRA Rigidity of RCK (BLACK) FLYERS

It's a fact. With RCK tempered flyers you can actually speed up your spindles by as much as 100 to 200 RPM, and not have to worry about the damaging vibration that you'd get from ordinary flyers.

Ideal's heat-tempering process—the same process that gives RCK (Black) flyers their glossy rust-resistance—also stiffens them, gives them stronger resistance against the "ballooning" effect which makes an ordinary flyer wobble at high speeds. This extra rigidity overcomes many of the ill effects of fluctuating spindle speeds, assures more uniform yarn quality.

This and other *improved methods* used exclusively by Ideal Machine Shops make RCK flyers the outstanding choice of production-wise, quality-conscious mill men from coast to coast.

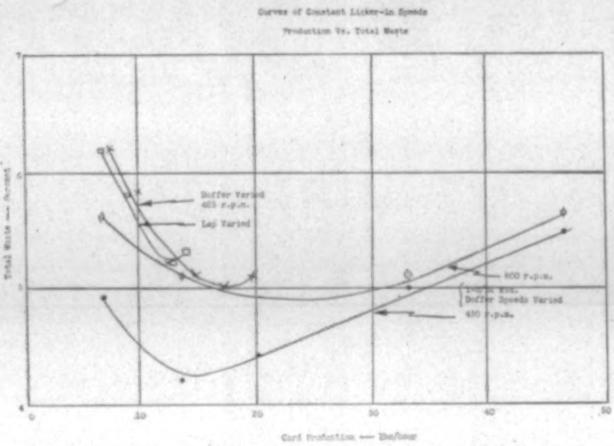
- Flyer barrels drawn in .003" undersize with Ideal's pneumatic swaging machine, and aper-reamed to factory specifications. Legs and noses smoothed and straightened.
- Flyers balanced at the running speed *specified by your mill* with Ideal's SELECTO SPEED flyer balancing process.
- Flyers given your choice of the famous RCK finishes:
  - RCK Black—glossy, highly rust-resistant.
  - RCK Bright—highly polished, ideal for rayon or cotton.
  - REGULAR—all repairs, but no polishing.

IDEAL MACHINE SHOPS, INC.

Phones 4161 and 4391

BESSEMER CITY, NORTH CAROLINA

27TH YEAR OF CONTINUOUS SERVICE TO TEXTILE MILLS



short curves on the upper left portion of this chart were made on some Strict Low Middling cotton some time ago, and with the magnification of the scale that we have used, these two curves for two different conditions of processing show the beginning of a trend to higher waste. The two extended curves were plotted from more recent experimental work, and they do show this same trend, but to a greater degree show the increase in the total amount of waste as we increase our production. As production is increased, the mote and fly waste decreased percentagewise, although the rate of decrease slows up considerably at high production levels. This fact, coupled with the increase in the amount of cylinder and doffer strips, probably accounts for this change in total amount of waste. A table has been included which summarizes the changes in waste as the different conditions are varied. Perhaps this chart will help to eliminate some of the confusion that must have been aroused by all these charts. I must confess that it is difficult to follow through at each stage where waste is made with changes in licker-in speed, rates of production, flat speed, etc., but if you use this final chart as a guide, it is quite possible to analyze just what is happening at the card. This information is the basis for studies that we hope to be able to make in order to control waste extraction, and as we indicated at the beginning, it must be done hand in hand with the control of neps. However, for those of you who are not primarily concerned with neppiness but solely with waste removal, analysis of these graphs and charts should provide a means of controlling the waste extraction, whether you want it at high or low levels.

A portion of the approximately 85 mill technicians who last month voted officially to organize the Textile Quality Control Association.

WASTE CHANGES ON THE CARD

	Production (Only) Changed	Licker-in Speed (Only) Increased at Same Production	Flat Speed Increased (Other Conditions Constant)
Motes and Fly	Decrease	Increase (Greater at low production level)	No change
Cylinder and	Increase	No trend	No trend
Doffer Strips	Decrease	Decrease	Increase
Flat Strips		(small change)	•
Over-all Card Waste	Decrease at first, then increase at higher productions	Increase	Increase

---

Professor Grover's paper was presented April 13 at Raleigh, N. C., during the organizational meeting of the Textile Quality Control Association.

Effect Of Opening And Picking On The Staple Length Of Cotton

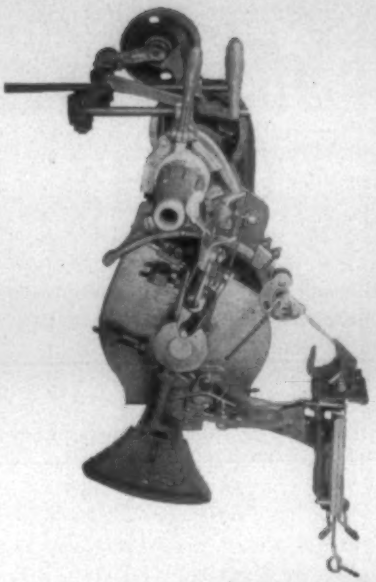
By V. E. OLEMAN

THE Fibrograph instrument, to this mill man's mind, gives a quick and easy method of determining staple lengths of samples of cotton at any point in the various processes of cotton manufacture. Before, it was a very tedious, long-drawn-out process to make an analysis of samples of cotton at any given point. The Fibrograph has been described fully in the past and in this test we only want to mention the two main readings given by the instrument.

First, it gives the average length of the upper half of the fibers by weight, which is to say that if all the fibers were separated according to length and it were possible to segregate all the longer fibers which weighed one-half of the sample, then this would be the upper half by weight of the fibers. This upper half by weight are the fibers that a classer usually uses for grading the sample for staple length.

Second, the Fibrograph gives the mean or average length of *all* the fibers in the sample. That is to say if it were possible to measure each individual fiber as to length and record it, then the mean length would be the average length of all these measurements.

But the Fibrograph does both of these tasks electronically in a few minutes. Having one of these machines available, the writer sought to know if the beating action of opening

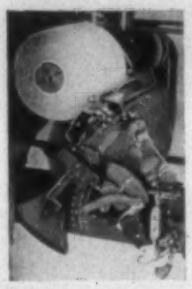


You are looking at the

Most Flexible Winding Spindle

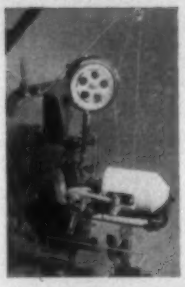
in the industry

This basic spindle unit of the No. 50 Universal Precise Winder is used . . . not only to wind more than 90% of the world's coned synthetic yarn . . . but also to produce a wide *variety* of special work that is only hinted at on this page.



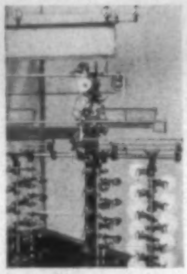
WINDING CREPE WITH MAGNETENSION

This device utilizes a magnetic field to provide constant, smooth tension, eliminating excessive peaks or loss of tension control caused by any uneven delivery from supply package.



WINDING THREAD ON BOBBIN SPOOLS

Large compact packages to deliver thread overend for the cutting trade are wound with this attachment equipped with automatic visible counter. A similar attachment winds the so-called "miniature" bobbin spool.



WINDING MULTIPLE ENDS FOR WIRE INSULATION, ETC.

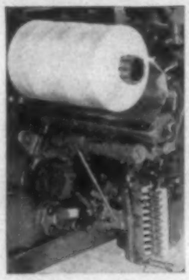
Packages containing up to 30 ends are wound in perfect tape form from packages of previously-inspected yarn. Individual stopping mechanisms for each end permit tying single strands, avoiding "bunch" knots.

WINDING PINEAPPLE CONES OF NYLON

To put nylon into the best delivery form for full-fashioned, tricot, and circular knitting, the No. 50 Pineapple Coner with emulsion attachment is used, winding from tubes previously sized on the Universal No. 250B Single End Sizer.

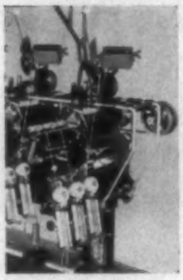
WINDING 3° 51' CONES

The large diameter of this cone increases production upwards of 12%. It is especially suitable for fine denier nylon because it delivers with more uniform tension on the knitting machine.



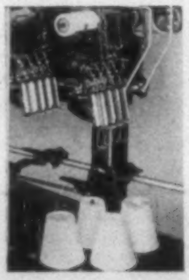
WINDING DYE TUBES OF SYNTHETIC YARNS

This Ray-Silk attachment winds synthetic yarn with a minimum amount of applied tension and pressure to produce soft tubes for uniform dyeing.



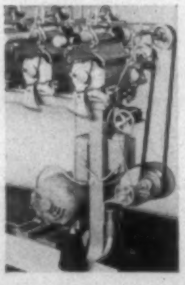
WINDING TWO OR MORE COPS

Two or more small packages per spindle can be wound with individual paraffin attachment, tension and stopping mechanisms. For example: three cops each 3½ in. long can be wound on one spindle.



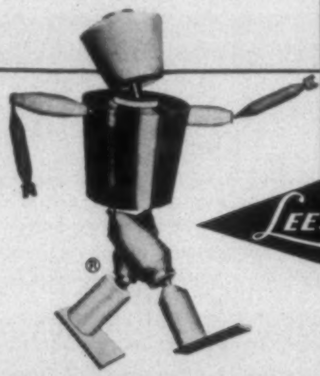
WINDING YARN FOR COVERING RUBBER

Here, two tubes per spindle, two ends per tube, are being wound for a rubber covering machine. Covered rubber yarn in skein form is then wound onto pineapple cones for the next operation.



WINDING HAND KNITTING SKEINS

Skeins of home knitting yarn are wound on No. 50 Winders equipped with special electrical attachments for automatically stopping all six spindles simultaneously at the predetermined yardage.



LEESONA ®

UNIVERSAL WINDING COMPANY

Universal Division

P. O. Box 1605, Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton, Canada; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns and picking affected the staple length of the cotton both as to the upper half by weight and also the mean length of all the fibers. Below is a summary of the test.

Purpose of Test—To determine effect of opening and picking action on cotton due to beating of cotton.

Method of Test—Small samples of cotton were taken from about eight bales of cotton that were open in the opening room and about eight samples of cotton were taken from laps made from this cotton. These samples were taken to the laboratory and allowed to condition for about ten or 12 hours. The cotton was taken and broken by hand so as to get a cross section of all samples. Fibrograph runs were made on each sample, two tests for each sample of cotton.

Results of Tests—

	Cotton Grade and Staple—Acala 1⅛"	
Item	Length of Upper Half by Weight	Mean Length of All Fibers
Raw cotton test No. 1	1.16 inches	.86 inches
" " " " 2	1.15 "	.84 "
Lap " " " 1	1.06 "	.74 "
" " " " 2	1.04 "	.70 "

Conclusions—From the above tests it is evident that the beating action of the opening equipment and the pickers causes some decrease in the average length of the fibers, probably due to some fibers being broken in the treatment of the staple. So it might seem evident that the less beating that takes place in the cotton the better from a staple standpoint is the resulting cotton

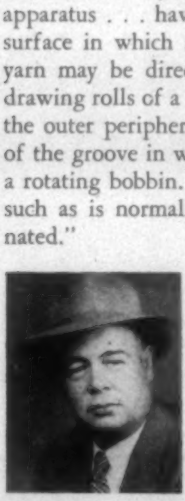
We see from this test we have lost about one-tenth of an inch in the average length of the upper half by weight, and about one-eighth of an inch in the mean length of all the fibers in the samples. The opening and picking are cleaning machines but at the same time they are a damaging machine so far as staple lengths are concerned.

The machinery used in the opening and picking for this test consisted of an Aldrich two-beater opener, a vertical opener, a Superior cleaner and a two-beater Saco-Lowell picker. The cotton was of Middling to Strict Middling grade and of California growth. So, we would not say that the cotton was subjected to any more than usual cleaning action of the average combed yarn mill. Nevertheless there is positive evidence of the loss in average staple length.

Invention Claims 'Travelerless' Spinning

UNITED STATES Patent No. 2,550,761, relating to "an improved yarn guide ring adapted to be mounted on a conventional ring rail of spinning frames, twisters and the like," has been granted to Ralph V. Blackwood of 2501 Columbus Circle, Charlotte, N. C.

The patent papers, published May 1 of this year, state that "It is an object of this invention to provide a yarn guide apparatus . . . having a groove extending around its inner surface in which a ring is loosely mounted and to which yarn may be directed from a suitable source such as the drawing rolls of a spinning frame, the yarn passing between the outer periphery of the last-named ring and the bottom of the groove in which it is disposed and then extending to a rotating bobbin. It is thus seen that the use of a traveler such as is normally employed in spinning rings, is eliminated."



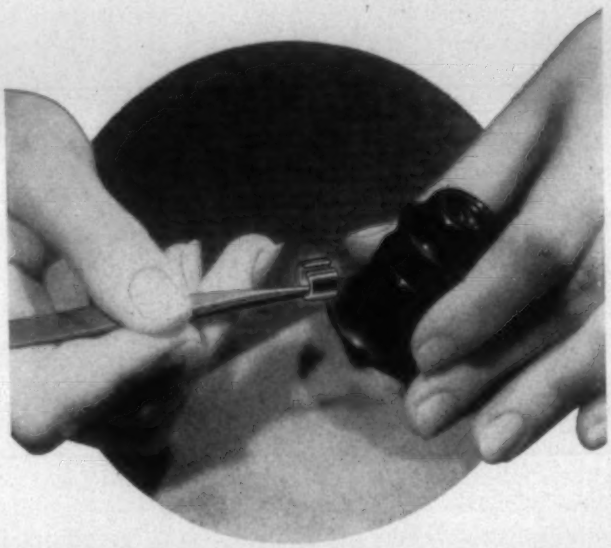
Mr. Blackwood is a veteran of 20 years in yarn and fabric production. He began his career in 1930 as testing supervisor and assistant overseer of spinning for Linen Thread Co. at Anniston, Ala., and subsequently became night superintendent for John P. King Mfg. Co. at Augusta, Ga., in 1936, superintendent of Dan River Mills' Plant No. 3, Danville, Va., in 1942, plant manager for Collins & Aikman, Norwood, N. C., in 1945, assistant manager and superintendent for Mansfield Mills at Lumberton, N. C., in 1948, and superintendent of manufacturing for Mooresville (N. C.) Mills last year. At present he is devoting his time to locating a firm which can assist him in the development, manufacture, promotion and sale of the ring.

Mr. Blackwood got his idea in 1948, and filed application for patent the next year. The invention has had only a limited trial, with 64 equipped spindles operating for a period of three months. Elimination of the traveler, to employ an understatement, is not a small order. The editors of TEXTILE BULLETIN wish to have it understood, without qualification, that there is considerable doubt as to whether Mr. Blackwood's invention can be employed on a large-scale basis. It is a matter for practical mill men to evaluate, and for their consideration we present the following material from Patent No. 2,550,761:

> It is another object of this invention to provide a ring for spinning frames and the like having upper and lower annular members having their inner proximate edges cut away, so that when they are placed in a superposed relation a groove substantially semi-circular in cross section will be provided for loosely receiving a floating ring and having means for securing the upper and lower members together and also securing the upper and lower members to the ring rail of the spinning frame, and to further provide coinciding slots in the upper and lower members extending from the inner to the outer surfaces thereof and being disposed substantially tangent to the curvature of the inner surface of the upper and lower members and communicating with the groove in the inner surface of the upper and lower members to thus provide means for rapidly threading the yarn between the periphery of the second ring and the bottom of the groove in the inner face of the upper and lower members, it being understood that the ring should have a coinciding slot therein to facilitate passing the yarn through the slot in the ring during the threading operation.
>
> Since a traveler is not employed in my improved spinning and twisting ring, it is seen that the use of a lubricant is eliminated and this also insures that the yarn, regardless of whether it is a wet or dry twist yarn, will be free of lubricant or stains which normally collect on the yarn as it passes through the traveler on other types of spinning and twisting rings. (*See* second paragraph above.—*Eds.*)
>
> Fig. 1 is a front elevation showing a portion of a spinning frame and showing the improved ring applied to a portion of the ring rail and a bobbin extending there through; Fig. 2 is a sectional plan view taken along the line *2—2* in Fig. 1; Fig. 3 is a vertical sectional and fragmentary view taken substantially along the line *3—3* in Fig. 2 and showing the manner in which the yarn engages the yarn guiding rings and is directed to the bobbin; Fig. 4 is an enlarged vertical sectional view of the right-hand portion of Fig. 3.
>
> Referring more specifically to the drawings the numeral *10* indicates a bolster rail which supports a plurality of bolsters *11*, only one of which is shown in the drawings. This bolster *11* rotatably supports a spindle *13* having a whorl *14* to which conventional driving means, not shown, are connected for transmitting rotation

Every One –

SCIENTIFICALLY PERFECT



CARTER TRAVELERS

. . . and in every box every traveler is exactly alike

This uniformity and quality of CARTER TRAVELERS is the result of years of experience, modern, precision machinery and exacting scientific control. The weight, temper and shape of every traveler is checked and rechecked by two trained technicians working in a modern metallurgical laboratory.

Scientifically, CARTER TRAVELERS are designed to increase yarn production at lower costs.

CARTER TRAVELER COMPANY
DIVISION OF
A. B. CARTER, INC.
GASTONIA N. C.

REPRESENTATIVES

C. E. HERRICK, 44 FRANKLIN STREET, PROVIDENCE, RHODE ISLAND
R. D. HUGHES SALES CO., 2201 CEDAR SPRINGS, DALLAS 1, TEXAS
HUGH WILLIAMS & CO., 47 COLBORNE ST., TORONTO 1, CANADA

$ for $ . . . your best buy in aprons

Dollar for dollar, and point-by-point . . . wear, fit, flow of yarn, uniformity of yarn . . . you'll find KENTEX your best buy in textile aprons. Starting with the finest quality bark-tanned or chrome leather, KENTEX Aprons are made by skilled craftsmen, using modern machinery developed by us—and are precision-gauged for thickness, width, length and circumference.

Write for prices and free samples. We guarantee a sure fit.

TEXTILE APRON COMPANY
EAST POINT, GEORGIA
J. B. KENNINGTON, OWNER

Hugh Williams & Company—Toronto, Canada—Canadian Representatives to the spindle thereon on which yarn *15* is adapted to be wound.

Disposed a substantial distance above the bolster rail *10* is a vertically movable ring rail *19* which is provided with a plurality of openings *20* only one of which is shown in the drawings. This ring rail *19* is driven by conventional means, not shown, to move up and down with respect to the bobbin *14* so as to lay the yarn *15* onto the bobbin evenly.

The numeral *21* broadly designates the ring as a whole which comprises upper and lower ring members *22* and *23* respectively. The proximate inner edges of each of the ring members *22* and *23* are provided with coinciding substantially quarter-circular grooves which, when the ring members *22* and *23* are assembled, form a groove *24* around the inner face of the ring *21* in Figs. 3 and 4.

The upper and lower ring members *22* and *23* are secured together by bolts *26* which also secure the members *22* and *23* to the ring rail *19*, the ring *21*, of course, being positioned in co-operating alignment with the opening *20* in the ring rail *19*. The members *22* and *23* are provided with coinciding slots *27* which extend from the outer to the inner surfaces of the ring *21* and these coinciding slots are disposed substantially tangent to the inner surface of the ring *21*. In order to facilitate the threading of yarn through the coinciding slots *27* in the members *22* and *23* it is preferable that the ring rail *19* be provided with a plurality of slots *30*, there being one slot *30* for each of the rings *21* and this slot *30* coincides with the slot *27* in the members 22 and 23.

Also, before the upper and lower members *22* and *23* are assembled in the manners shown in Figs. 3 and 4, a continuous floating ring *31*, of substantially less thickness than the width of the groove *24* and of substantially less over-all diameter than the diameter of the groove *24*, is mounted in the groove *24* between the members *22* and *23*. It will be noted in Figs. 3 and 4 that this floating ring *31* is of substantially the same inner diameter as the inside diameter of the members *22* and *23*, however, the outside diameter of the ring *31* is substantially less than the diameter at the bottom of the groove *24* in the members *22* and *23* and is thus loosely confined within the groove *24*. It is preferable that the outer peripheral edges of the ring *31* be rounded, as at *32*, and that the ring *31* be polished to avoid breaking the yarn as it passes thereby. Also in Fig. 4, it is preferred that the peripheral edge of the groove *24* at the upper member *22* be rounded as at *33* and that the inner surface of the member *22* be polished to further prevent the yarn from breaking as it passes thereby.

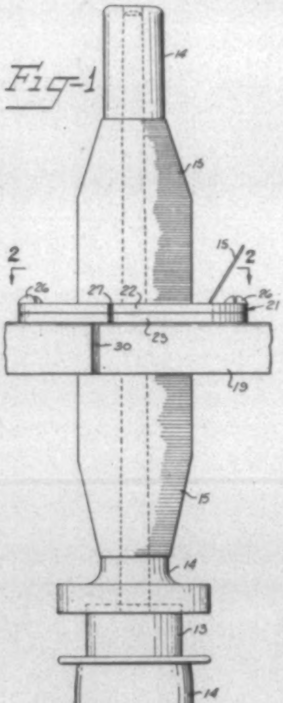
It is thus seen that upon placing the empty bobbin *14* on the spindle *13*, an operator may thread the yarn through the coinciding slots *30* and *27* in the ring rail *19* and the guiding ring *21* and the yarn will then pass downwardly from a suitable source, such as the drawing rolls of a spinning frame, and will then engage the inner surface of the upper member *22* and pass into the groove *24* and around the outer periphery of the ring *31* and thus to the bobbin *14*. The spindle *13* is being driven, the yarn *15* is then wound around the bobbin *14* and, at the same time, the yarn *15* moves around the floating ring *31*, the outer ring remaining stationary.

May 1, 1951 R. V. BLACKWOOD **2,550,761**

SPINNING AND TWISTER RING

Filed April 21, 1949

Fig-1



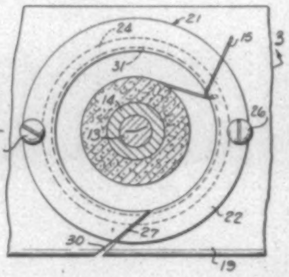


Fig-2

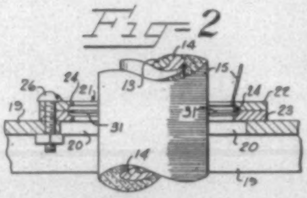


Fig-3

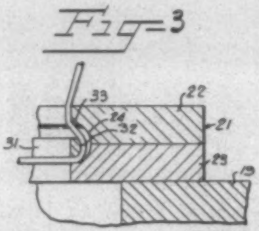


Fig-4

INVENTOR:
RALPH V. BLACKWOOD
BY
Paul Eaton
ATTORNEY.

Georgia Operating Executives Hold Session

Georgia managers, superintendents and overseers, at the recent Spring meeting of the Textile Operating Executives of Georgia in Atlanta, Ga., revealed that the pneumatic lap release or picker is producing a more uniform lap with yardage increases of up to 15 per cent. The meeting, which included discussions of carding, spinning and warp preparation, was presided over by H. M. Jackson, general superintendent of Fulton Bag & Cotton Mills, Atlanta, general chairman of the T.O.E.G.

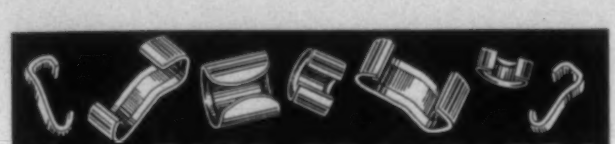
Turner Scott of Martha Mills, Thomaston, Ga., conducted the discussion on carding. At this discussion it was reported that mills having the pneumatic lap release have found air pressure of from 44 to 50 pounds to be best and that increased pressure tended to wear lap pins. No difficulty has been found with split laps and both waste and man-minutes are reduced. As yet, little experience could be reported on maintenance costs, but all felt the pneumatic releases would pay for themselves in the course of time.

Ball bearings on all moving parts of pickers has brought a free and easier flow of cotton, maintains constant speed and reduced friction on lap pins, the plant operators reported. Some plants had put ball bearings "on just about every moving part" with "most satisfactory" results. Not only has it resulted in an easier running machine, but a much improved lap, the group was told. At Crystal Springs Bleachery, Chickamauga, it was reported that the lap could now be held to a plus or minus one-pound tolerance.

Although there are some exceptions, most mill operators have found it better to use a Kirschner beater at low speed than a blade beater and increase the blows per inch, where the blows per inch are around 50 per cent, the discussion brought forth. The Kirschner beater at low speed makes a smooth appearing lap and does a better job, most had found. They believed that 50 blows per inch gave sufficient cleaning without damaging the staple. Most preferred the Kirschner in both the finisher and breaker section. Less neps were reported also.

The operating executives were divided on the advantages of ball or needle bearings on the top rolls on roving frames. Some reported a slightly more even yarn and all agreed the no-oiling feature was an advantage. However, others had found that rolls did not last so long.

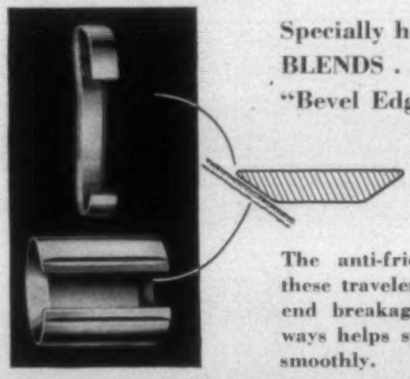
The vacuum automatic system of stripping cards has found much favor with Georgia operators. It is cheaper,



U. S. RING TRAVELERS

Right under his hat

Right under his hat each U. S. field man carries a world of useful data on travelers and their MODERN applications. If you feel you are not getting full satisfaction from your travelers, why not call in a U. S. representative?



Specially helpful on BLENDS . . . . U. S. "Bevel Edge" styles

The anti-friction design of these travelers, gives reduced end breakage, and in other ways helps spin blends more smoothly.

Prompt shipment from Providence and Greenville stocks

"A Style and Size for Every Textile Fibre!"

U. S. RING TRAVELER CO.

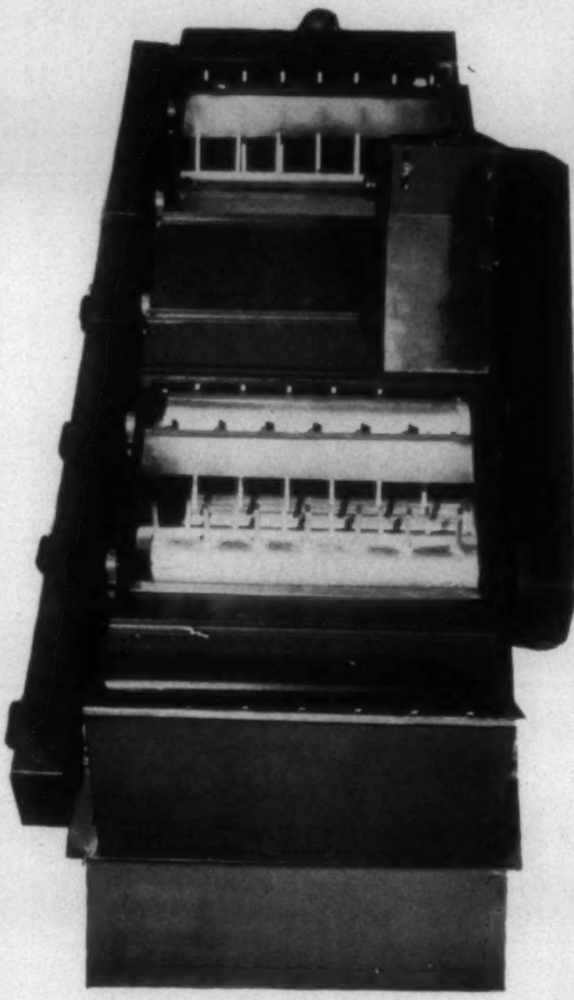
AMOS M. BOWEN, President & Treasurer
HOME OFFICE & FACTORY: PROVIDENCE, R. I.
SOUTHERN OFFICE & WAREHOUSE: GREENVILLE, S. C.

WRITE, WIRE OR PHONE NEAREST OFFICE.

W. P. Vaughan, W. H. Rose, Greenville, S. C. . Box 1048—Phone 3-0915
O. B. Land, Athens, Ga. . . . . . Box 1187—Phone 478
L. H. Mellor, Jr., Mid-Atlantic States . . . Phone Hilltop 6-1563
123 Treaty Rd., Drexel Hill, Pa.
H. R. Fisher, Concord, N. C. . . . . . Box 83—Phone 8366
H. J. Smith, Providence . . . . Box 1187—Gaspee 1-0100

You will get Cleaner Cotton with the

THORNBURG CLEANER



Air Free

No air movements to obstruct the centrifugal action of the beaters upon the fibre and no air current to carry light leaf, etc., through with the cleaned cotton. Dust, motes, fly, leaf, and other foreign trash is loosened, separated, and permitted to fall by force of gravity through the grids, without interference by air currents, into the large refuse chamber.

Employs mechanical and centrifugal force to progressively open and clean cotton or other fibres through six individual cylinders. Revolving beaters open and pass it over 225 vibrating, adjustable, non-choke grid bars. Centrifugal force and gravity opens the stock and removes motes, sand, dust, leaf, fly, and other foreign matter.

30 Days Free Trial In Your Mill Without Obligation!

THORNBURG MACHINE WORKS

DALLAS - Phone 6829 - N. C.

they reported, has reduced labor costs and is much safer. In low grade cotton, some had found an occasional hand-stripping necessary, however. Most favored controlled-draft drawing over conventional four-roll drawing, believing it resulted in more even sliver and rover. One mill reported sliver variation of 19 to 20 per cent on ball-bearings drawing rolls at a speed of 425.

The discussion on spinning and warp preparation was conducted by Z. B. Mangum, Sibley Division of Graniteville Co., Augusta, Ga.

Although several Georgia mills have had experience in the new "high" draft spinning change-over using the newly-designed cradle, its use to have has not been sufficient to give more than "limited" results.

The under-frame cleaner on spinning drew much praise from those mills using this system. All reported that loading of travelers is greatly reduced and one mill had experienced 25 per cent less ends down. Some cleaned every 24 hours and some once a week. Cleaning time is reduced up to 50 per cent and maintenance is reasonable, they reported.

Those with experience in the spinning frame builder motions incorporating automatic features reported they had found that both the pneumatic type and the mechanical type had operated satisfactorily. One mill reported an increase in yards per bobbin and a more uniform bobbin from the mechanical type.

In the use of ball-bearing top rolls, most of the textile operators had found them satisfactory, reporting a more even yarn of up to five per cent less variation in weight and a three per cent increase in its breaking point. However, several had found that after about eight months' wear, nylon top saddles tended to separate or rise up. The nylon oil-less top roll cap bars results in a definite saving in oil, they made known.

L. G. Hardman, Jr., president of Harmony Grove Mills, Commerce, Ga., and president of the Cotton Manufacturers Association of Georgia, was guest speaker at the meeting. Mr. Hardman told the group that the key men of any textile mill are its operating executives, for to the workers in the plant they are company itself. He also cited the great technical improvements in the efficiency, quality and production of textile mills in Georgia due to the co-operative activities of T.O.E.G.

The resignation of Robert W. Philip of Callaway Mills Co., LaGrange, Ga., as secretary-treasurer of the group was accepted "with deep regrets." Herman A. Dickert, director of the A. French Textile School at Georgia Tech. was elected by the executive committee to succeed Mr. Philip. Mr. Philip had served the group since its organization 29 years ago. E. A. Bentley of Swift Mfg. Co., Columbus, Ga., was elected to the executive committee to succeed H. T. Gilbert of Athens (Ga.) Mfg. Co., whose term had expired.

Survey Of Textile Fiber Consumption

How much does the consumption of cotton and other textile fibers in the United States increase or decrease from year to year? This question is answered in a statistical survey, covering 56 years of textile consumption in the United States, which has been made at the Bureau of Agricultural and Industrial Chemistry's Southern Regional Research Laboratory in New Orleans, La.

Cotton consumption fluctuated from year to year but cotton is still used more than wool, silk, flax, rayon, and all other fibers combined. Rayon and other synthetic fibers reached all-time peaks during the past five years.

The survey, which is part of a study made by the Southern Laboratory in connection with its research on cotton utilization, provides a convenient and comprehensive reference source on the competitive position and the relative importance of all the different fibers produced, processed, exported, imported and consumed in the United States. Such data are of value to growers and handlers of fibers and to students of production and consumption trends.

This survey is Statistical Bulletin No. 89, *Trends in the Consumption of Fibers in the United States 1892-1948,* by Barkley Meadows. It may be obtained by writing the Southern Regional Research Laboratory, 2100 Robert E. Lee Boulevard, New Orleans 19, La.

Report On Tensile Recovery Characteristics

New information on the tensile recovery characteristics of textile fibers is contained in a report now available from the Office of Technical Services of the U. S. Department of Commerce. The report, prepared by the Army Quartermaster Corps, presents an account of systematic recovery tests of samples representing 16 different textile fiber materials. The materials are compared as to the percentage of their elongation which recovers immediately; that which recovers after a defined period of time, and that which remains "permanently."

The new electronically-controlled Instron tensile tester was used for the tests employing a specially-developed cycling technique. Fibers tested were Fiberglas, cotton, ethiocel, Fortisan, Saran, viscose, acetate, nylon, Orlon acrylic fiber, Vinyon CF-HST, NOZZ, NORU, wool, casein and polyethylene.

Improved equipment will help to eliminate minor inadequacies found in the method, according to the report, and the recovery data secured will lead to a better understanding of the complex behavior of textile materials and their practical implications. PB 103038, *Tensile Recovery Behavior of Textile Fibers,* 59-pages including photographs, graphs, tables and bibliography sells for $1.50 per copy. Orders should be addressed to the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C., accompanied by check or money order payable to the Treasurer of the United States.

Increase Weight Of Dynel Shipping Bales

Carbide & Carbon Chemicals Co., a division of Union Carbide & Carbon Corp., producer of Dynel staple, increased the weight of standard Dynel shipping bales to contain 350 pounds net of fiber, effective May 1, 1951. This increase in bale weight from 300 pounds is a part of a program to reduce freight handling expenses, according to C. A. Setterstrom, sales manager of the company's textile fibers department. Spinners of Dynel yarns are being cautioned that this change in weight may mean that the steel baling straps are under increased tension, and workers concerned with bale-opening must be careful when cutting the straps. The over-all width, length and height of the new bales will remain essentially the same as before, approximately 28 by 54 by 42 inches.

You Get—

QUALITY SERVICE
AND ACCURACY

When you have your Spindles, Pressers, Flyers, Steel Rolls & Picker Aprons reconditioned by

NORLANDER-YOUNG
MACHINE COMPANY
York Road Phone 5-4022
GASTONIA, N. C.

☆

QUALITY AND SERVICE AT A MINIMUM COST
Has realized thousands of repeated orders

LOWER SPINNING TAPE COSTS with

- Assures Top Spindle Speed
- Lower Tape Cost Per Spindle
- Very Low Stretch Factor
- Double Herringbone Weave

Compare Tiger-Tuf with any other tape. Compare quality —compare costs. You'll want to equip all of your frames with dependable TIGER-TUF. Write today for details.

Immediate Delivery in the following widths:
1/2" 9/16" 5/8" 11/16" 3/4" 13/16"

COLEMAN CO., Inc.
POST OFFICE BOX 1351
GREENVILLE, SOUTH CAROLINA

Yes, Lots More

✓ **EXTRA VALUE...**
✓ **EXTRA SERVICE...**

Singleton's "Draft Horse"

LONG DRAFT
APRONS

The World's Finest . . . Bar None! Made of Select, Super-Finished Texas Calfskin by Expert Craftsmen on Especially Built Machines, Gauged to Micrometric Accuracy of Measurement. Absolute Uniformity.

●

A COMPLETE LINE OF
LOOM STRAPPING
BUMPER STRAPS
HOLDUP STRAPS
Jack and Harness Straps—Binder Leather

●

NOW! *The New Patented*
CHECK STRAP
with the "MAGIC GROOVES" that
Reduce Heat — Relieve Tension
Permit Instant Self-Forming
Increase Strap Wear
Save Money—Increase Efficiency

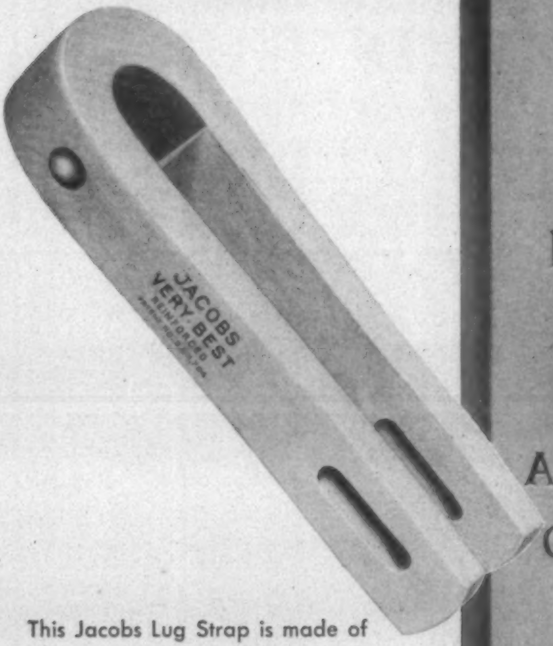
●

A Pleasure To Submit Samples
And Quote Our Sensible Prices.

RUSSELL A.
Singleton & SONS
BLANCO, TEXAS

ENGINEERED

For Modern Loom Speeds



This Jacobs Lug Strap is made of best quality duck, specially reinforced at points of wear and stress, and is fused with special hide glue.

Like all Jacobs products, Reinforced "Verybest" Lug Straps are a result of 82 years' leadership in loom accessory manufacture. Experienced weavers demand them.

JACOBS

REINFORCED "VERYBEST"
LUG STRAP

★

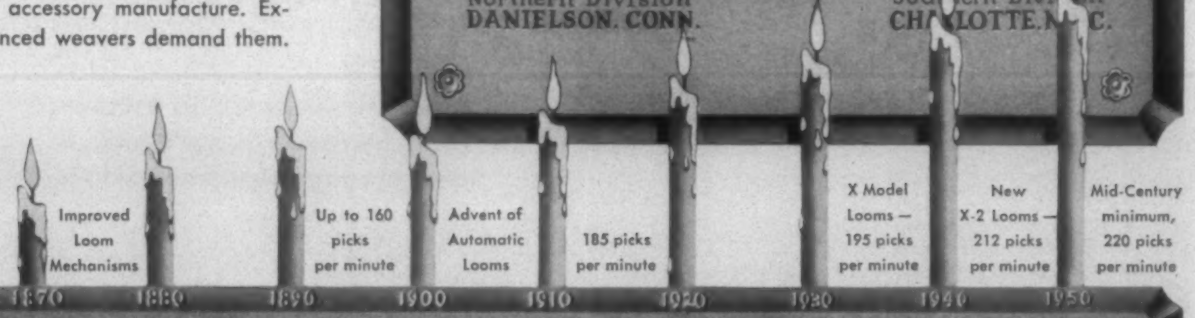
A LOGICAL RESULT OF DECADES
OF CONSTANT IMPROVEMENT
AND RESEARCH

★

THE BULLARD CLARK COMPANY
E. H. JACOBS
EST. 1869

Northern Division
DANIELSON, CONN.

Southern Division
CHARLOTTE, N. C.


Improved Loom Mechanisms
Up to 160 picks per minute
Advent of Automatic Looms
185 picks per minute
X Model Looms — 195 picks per minute
New X-2 Looms — 212 picks per minute
Mid-Century minimum, 220 picks per minute
1870
1880
1890
1900
1910
1920
1930
1940
1950

JACOBS LOOM NECESSITIES MEET
EVERY LOOM SPEED REQUIREMENT

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part 24 – Putting Face (or Cover) on Cloth

IN forthcoming articles in this series it is my intention to discuss, in detail, imperfections in cloth such as mispicks, thin places, drawbacks, etc. I will endeavor to give the causes and the remedies for them. A piece of cloth can be woven entirely free of the above-mentioned imperfections and still be a shoddy, low-grade fabric if the correct interlacing of the warp and filling yarns are not obtained. (Varied opinions exist among weave room men as to the best methods to obtain this result, and too many of them have no fixed ideas on the subject, but just trust to happy-go-lucky, hit-or-miss methods, and of course this is not good for the mills' reputation.)

Down through the years, many years, which I have worked as supervisor or overseer, I have tried to avoid being a dogmatic person in my views and attitudes towards my co-workers. I have never taken the position that my ideas were infallible, and that things must be done on the job thus and so just because I gave the order. I think this would be taking a very narrow view of the over-all situation, and I think the result would be the stifling of thinking and co-operative action on the part of the employees, or co-workers. Tactics like this will not build an organization that will function smoothly and get the desired results. I think we should always be willing to admit, whole-heartedly and honestly, that the other fellow knows something that we don't know and by giving him the privilege of expressing and trying out his ideas all will be benefited over the long run. If the employees' idea is better the overseer should be willing to accept it and let it be known that it is the other fellows' idea and is to be used until something better is found. This will promote good feeling and full co-operation on the job and get things done. I ask the reader to not get the idea that every Tom, Dick and Harry has the privilege of changing the overseer's orders and doings things his way without the knowledge of the man who is responsible for results, the overseer. I am only suggesting that the employee should have the privilege of expressing his views and ideas to the overseer, but the overseer must be the final judge because he is responsible for results. Any other procedure would be destructive to the organization.

When an employee suggests some change to the overseer and the overseer is able to convince him that his idea is not practical, the overseer's prestige will be raised and the employee will be benefited by having a distorted idea removed. On the other hand when the overseer recognizes the worth of the employee's suggestion and accepts and uses it he has not lost face or prestige but has created an indispensable feeling among the employees that they are a part of things and really belong, and instead of the employees (the worthwhile employees) losing respect for him and his authority they will respect him more for his fairness and broadmindedness. By adhering to the policies advocated above the overseer will build a closely-knit, co-operative team and if he is worth his salt he can remain the respected captain of the team.

Loom fixing comes under the heading of maintenance, and maintenance is a direct responsibility of the supervisory personnel, and that is the reason I touch on the subject of supervision from time to time in this series. It is impossible to get the looms set up and keep them set up correctly to obtain the proper interlacing of the warp and filling yarns which gives a smooth face and cover on the woven fabric without constant and efficient supervision.

I have spent years working with other men, as outlined above, trying out various ways of setting up the various parts of the loom in order to obtain a desirable cover on the cloth. A woven fabric must have three things, along with some others, to make it attractive to the buyer. They are: uniform interlacing, or face, feel and breaking strength, both warp and filling-wise. The first two are governed almost entirely by loom settings and the last mentioned, breaking strength, can be helped a lot by loom settings. Smooth warp and filling yarn, free of thick and thin places, and the way the warp yarn is sized at the slasher have something to do with the appearance of the cloth, but unless the loom is set up right the above-mentioned things would be in vain insofar as the desirable appearance of the cloth is concerned. To secure uniform interlacing of the warp and filling yarns is dependent on one thing, and that is the relative difference of the top and bottom sheds of the warp yarn when the filling is driven forward, by the reed, and placed in its final resting place in the cloth. The top shed must always be slacker than the bottom shed. To obtain this result adjustments must be made on the following parts: take-up roll, harness setting, whip roll, stop motion girt, timing of harness cams and tension on the warp yarn. Adjustments must be made on the above parts in the order named to get the job done correctly. We have covered the setting of these parts in previous chapters while building the loom, but as stated before we were then studying how to set up the loom, but now we are on the subject of why the various parts should be set thus and so.

First, raise the take-up roll as high as the adjusting will allow and tighten the bearings bolts securely. Second, adjust the harnesses in relation to the lay, as shown in Fig. 71. With the lay on back center with the sheds wide open the yarn in the bottom shed should just clear the race plate on the lay. Third, with the sheds still wide open adjust the whip roll on exact parallel line with the take-up roll with the line passing through the heddle eye in the top shed as indicated by broken line in Fig. 71. (This can best be done by the use of a stout twine). Fourth, with the sheds still wide open adjust the stop motion girt to a point where the yarn in the bottom shed will be tightly pressed against the front rod, or bar, of the girt (indicated by X mark in Fig. 71). At this point be sure that the yarn in the top and bottom sheds is separated all the way back through the drop wires. Should trouble be encountered here this objective can be attained by raising the whip roll slightly. (The separation of the yarn back through the drop wires is partly governed by the size or throw of the harness cams, which will be mentioned later). Fifth, timing of the harness cams. With the shuttle in the shipper handle end of the loom, time two harness level at a point far enough back from the fel of the cloth so that the two changing harness will have just reached the wide open point when the lay is on front center. (All the sketches and also the harness cams shown herein are for two harness plain weaves, but all the settings given will apply to any number of cams used on any weave made on cam looms. If using more than two harness all these settings should be made with the two back harnesses, the two nearest the stop motion girt).

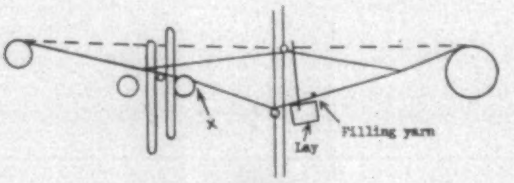


Fig. 71.

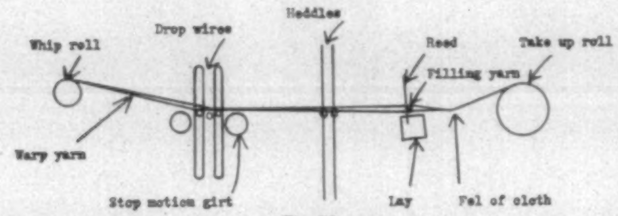


Fig. 72.

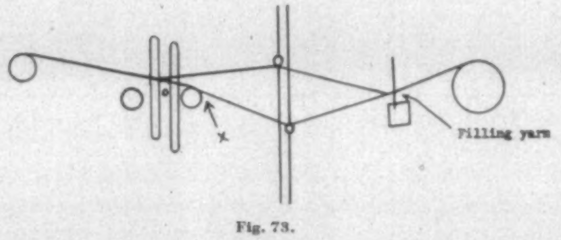


Fig. 73.

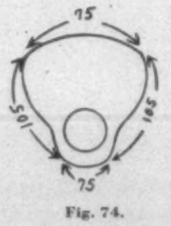


Fig. 74.

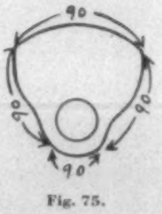


Fig. 75.

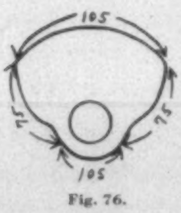


Fig. 76.

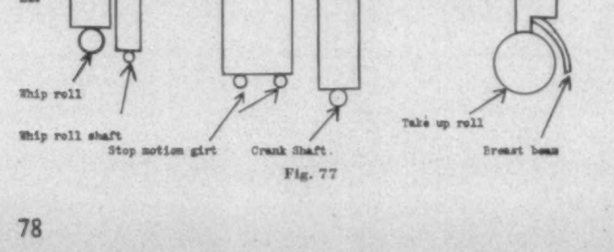


Fig. 77

The distance the harness will be level on the change up and down will vary on different type cams. Three types of harness cams are used on Draper looms. They are shown in Figs. 74, 75, 76.

Fig. 74 is a slow cam	Fig. 75 is a medium cam	Fig. 76 is a fast cam
75° open up	90° open up	105° open up
75° open down	90° open down	105° open down
105° change up	90° change up	75° change up
105° change down	90° change down	75° change down
360°	360°	360°

We refer to a slow cam as one which consumes more time on the changes up and down than it does on the dwell open up and down. A fast cam is one which consumes less time on the changes up and down than it does on the dwell open up and down. Therefore, it can readily be seen why these cams will not level the harness at the same distances back from the fel of the cloth on the changes up and down.

The supervisor should determine the type cam being used and have gauges made for all the fixers to use when timing the harness cams. The important thing to remember is that the harness must be *wide open* when the lay reaches front center position. Sixth, best results will be obtained by adjusting the tension on the warp yarn slightly on the tight side. This will not only give better all around results in the operation of the loom, but will aid in more even interlacing of the yarns and give a smoother appearance to the woven fabric.

The Reasons Why

By a close study of Fig. 71 it can be seen why these settings will give a tight bottom shed and a slack top shed, as all the warp yarn is drawn below the parallel line extending from the whip roll to the take-up roll. Fig. 71 shows the lay on back center. This is the position of the lay when the shuttle passes through the sheds and deposits the filling yarn. As the lay moves forward from this position the sheds close and trap the filling yarn and the reed carries the filling forward and places it in its final resting place in the cloth, shown in Fig. 73. Fig. 71 shows the back harness down, and of course it is the tight shed when the shuttle passes through and deposits the filling, but as the lay moves forward the harnesses will have changed positions when the lay reaches front center, and the back shed has become the slack shed, and the warp yarn in this slack shed will bend around the strand of filling, as shown in Fig. 73.

The action of the slack warp yarn, in the top shed bending around the filling, allows the strand of filling to be pressed into its place in the cloth without pressure being put on it from the two sheets of warp yarn which has it locked in place between them. If the tension on the top and bottom sheds were equal, or near equal, the warp threads would exert sufficient pressure on the filling yarn, when it was pressed to its place in the cloth, to cause the filling to bend and these bends would be forced up and down between the warp threads and separate them to the extent that reedy cloth would be the result. The tight bottom shed is necessary, because the yarn in the sheds alternate, tight one pick and slack one pick, and the tight shed causes the warp yarn to be drawn straight and to interlace uniformly giving a smooth uniform appearance to the woven fabric. But due to the fact that the yarn in one shed is slack at all times when the filling is pressed in place the filling will not crinkle, or bend up or down and force the warp threads out of place, and apart.

Fullness, or a prominent twill on the face of the cloth is caused by the warp yarn bending around the filling yarn, and the filling yarn laying practically straight during the process of interlacing. With the settings suggested herein coarse or heavy warp yarn will show a more prominent twill on the cloth than the finer numbers, but regardless of the number of the yarn the results will be the same insofar as the even interlacing and smoothness of the cloht is concerned.

The real proof of the pudding is the eating thereof, and anyone can prove the soundness of these settings by trying them, on any cam loom, regardless of yarn numbers or construction of the cloth. To obtain the best results, all the settings suggested are necessary. To prove this, have one loom set as suggested, and then change any one of them and the difference can easily be detected. Another proof that the bending of the warp threads is responsible for the fullness or cover on the cloth is to use a different colored warp or filling yarn after the above mentioned settings are made and notice the results. The color of the warp yarn will show much more prominently on both sides of the cloth. This is positive proof that the warp yarn is bending more and the filling less. This also will increase the breaking strength, slightly, in both warp and filling yarns in the cloth.

Breaking strength, both warp and filling-wise, would be slightly increased when woven on a loom with the settings suggested above because the warp and filling yarn is relieved of undue strain at the point of the beat, or fel, where the filling yarn is driven to its resting place in the cloth. A close study of Fig. 73 will reveal to the reader why this is true. It will be noted that the yarn in the bottom shed is tight and drawn on a straight line, and the warp yarn in this shed depresses the strand of filling yarn downward. The yarn in the top shed being slack, it allows the filling yarn to be driven to its place without undue pressure from the yarn in either shed being put on it. Therefore, the filling will remain practically straight, free of bending or crinkling. The yarn in the top shed, which is underneath the filling at this point, does practically all the bending at this point of interlacing, and the fibers in the yarn in this shed are not put under sufficient strain to damage them. If both sheds are tight at the point of interlacing pressure will be put on the strand of filling from top and bottom causing the filling and also the yarn in both sheds to bend at this point of strain and thousands of fibers would be broken and weaken the breaking strength of the cloth.

In order to maintain these settings it is best to have some gauges made so that the looms can be checked quickly and easily. Shown in Fig. 77 is a home-made gauge which is easy to make and will do the job. The board (A) should be one by three inches, 12 inches longer than the depth of the loom from the whip roll to the take-up roll. The take-up roll, breast beam and crankshaft gauges can be secured in place as they are fixed positions. The other gauges should be slotted so that they can be adjusted if need be and secured to the cross board with bolts and thumb nuts. After getting one loom set as wanted, adjust the gauge parts to parts indicated. The gauge should be used on both ends of the loom.

Five Generations Of Loom Builders

THE Draper Corp. of Hopedale, Mass., has recently published a brief history of the company based upon the central members of the Draper family who contributed to the founding and administration of the firm. The author, William H. Chase, has been well known as the director of advertising for the Draper Corp. The history is primarily concerned with tracing the efforts and influences exerted by the five generations of the Draper family who have been actively engaged in the concern, commencing with the issuance of a patent to Ira Draper in 1816, and concluding with the presentation of the present officials of the company. The second section of the book is devoted to a general historical account of the progress of the textile industry and is the product of extensive research carried out by Mr. Chase in an effort to include all details which could be authenticated and to eliminate all legends of doubtful origin.

The business destined to become the Draper Corp. was founded by Ira Draper in 1816, the year when cloth was first sold from the first power loom set up in America the year before. Ira Draper came from a family that had pioneered in the textile industry in Britanny in the 11th century, and later in England. Ira Draper's ancestor, Thomas Draper, owned and operated a fulling mill and several hand looms in Heptonstall, England, and it was his son, James Draper, who came to America in 1647. James Draper settled in Roxbury, Mass., and was the first man in the American colonies to engage in the business of weaving and selling cloth. His son and grandson were farmers in nearby Dedham and shared an interest in a fulling mill located there.

Ira Draper was the great-great-grandson of James Draper and was also a farmer, but with great inventive ability. In 1816, Ira was granted a patent on an improved fly-shuttle hand loom, the most important feature of which was the first self-acting loom temple. This temple was practically automatic and reduced the labor of loom operation sufficiently to permit a weaver of the newly-introduced power looms to run two looms instead of one. The increased production per weaver was vital to the survival of the textile industry of America at this time, in the face of severe competition from England.

Ira Draper arranged to have his patented self-acting temples manufactured and sold by the Waltham concern making power looms. In 1829, he sold his patents and business to his eldest son, James. James was the first of the second generation of loom builders and successfully managed the business until 1837, when it was bought by his younger brother, Ebenezer D. The concern was permanently located in 1841, when Ebenezer built the first Draper shop in Hopedale, Mass. A younger brother of James and Ebenezer, George Draper, had improved the temple and obtained patents on the improvements in 1840, and 1842. George Draper joined Ebenezer in 1835, and together they formed the firm of E. D. and George Draper. At that time they adopted the policy of purchasing patents and developing and perfecting improvements in textile machinery. Most of the important basic sub-assemblies of looms and preparatory machines were first introduced and accepted as a result of their sponsorship and developmental work.

The second era of the history of the Draper Corp. commenced in 1868, and ended with the death of George Draper in 1887. During this period the industry underwent great changes brought about by large-scale adoption of ring spinning, invented by John Thorp in 1828. An important factor in the final success of ring spinning was the invention of better spindles. George Draper figured prominently in the development of spindles and took out his first spindle patent in 1867. By consolidating the spindle patents of his own, his associates, and those of outside interests, he produced and developed the Sawyer spindle, the Carroll double flange ring and adjustable holder, and later the Rabbeth spindle. By 1887, he owned or controlled the patent rights of 12 varieties of ring spindles. During the time from 1868, when E. D. Draper retired and Gen. William F., oldest son of George, became a partner, the firm was named George Draper and Son. This was later changed to George Draper and Sons when the two, George A. and Eben S., became active in the business. The death of George Draper in 1887, marked the end of the 57 years in which the second generation of Drapers had carried on the family business. During this time the Draper firm had grawn to be strong and financially secure.

The third and present era centers about the invention of the Northrop loom and its subsequent developments. The Northrop loom, invented in principle in 1889, was the creation of James H. Northrop. Development work was carried out by Draper, and the first order of 792 looms was sold and shipped in 1894, to the Queen City Cotton Mills at Burlington, Vt. With the introduction of the new loom, the firm of George Draper and Sons and the various subsidiary companies were merged into a single corporation. The consolidation took place in 1896, and the name of Draper Co. was assumed. The three Draper brothers were the principle officers of the company, Gen. William F. Draper, president; George A., treasurer, and Eben S., in charge of sales. The Draper Co. was reorganized in November, 1916, and became the Draper Corp. of today.

B. H. Bristow Draper, son of Eben S., was of the fourth generation of the Draper family engaged in loom building. Upon the death of George A. in 1923, he became treasurer and executive manager and was appointed president in 1923. He held this position until shortly before his death on June 4, 1944. Under his management the shop was completely modernized and equipped with the latest types of machine tools. High-speed looms and a rayon loom were developed during this time.

The current executives of the Draper Corp. are all men selected by B. H. Bristow Draper and were trained under him. C. Fred Butterworth is now chairman of the board of directors, Thomas H. West is president, Erwin N. Darrin is vice-president in charge of sales, and Hamilton W. Thayer is works manager. The fifth generation of the Draper family is represented by B. H. Bristow Draper, Jr. He entered the company in 1929, and today is treasurer of the corporation.

The Arts of Spinning and Weaving

"The Origin and Development of the Arts of Spinning and Weaving" is included as the second section of the book written by William H. Chase. This part of the book is devoted to a general outline of the development of modern textile machinery. However, it is not intended to be a history of the industry but is a story of the inventions which have made possible the equipment now in use.

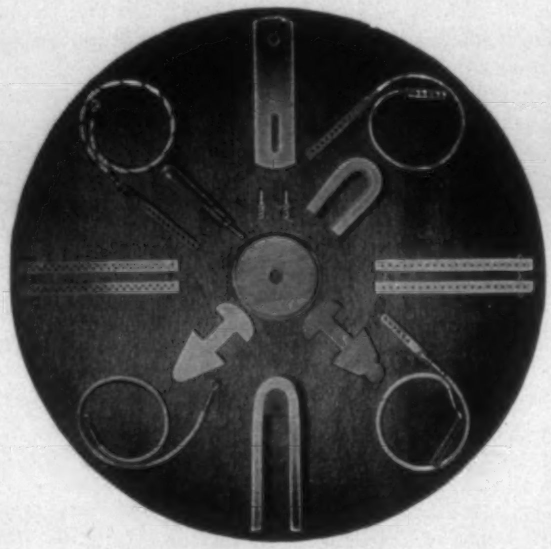
The actual date or the people who spun the first yarn and wove the first cloth is unknown. Presumably, the practices of spinning and weaving occurred independently at various points over the world and at a very early date in history. Drawings in a tomb in Thebes, 5,000 or 6,000 years ago, show men and women spinning and weaving. The Swiss lake dwellers in the Stone Age of at least 15,000 years ago were able to spin and weave flax and wool. Other early evidences of the practices of spinning and weaving have been found in Greece, Egypt, India, Asia, Peru, and in the states of New Mexico, Arizona and Utah. Early spinning was done by drawing a thread from a mass of fibers placed on a rod which later became the distaff, elongating this thread with one hand and twisting it with the other. The Lake Dwellers probably developed the spindle whorl, with a shaft of wood or bone and a whorl of clay or stone, which was rotated by the spinner to wind up the spun yarn.

The first loom was probably set up in India and was a single-barred loom. The warp threads were suspended from a holder and held straight by weights attached to each thread. The filling was passed through the warp by hand, first by finger tips and later by a needle or notched stick. This loom was suitable for long fibers but not for cotton, as the cotton yarn was not strong enough to hold the weights. The two-barred loom was used for cotton and consisted of two bars, one top and one bottom, over which a single end of warp thread was wrapped around all the way across the width of the loom. At the dawn of Christianity, most of the peoples of Europe were weaving woolens. Linen and cotton came from India, fine linens from Egypt, and silk from China, and were being traded by the tribes around the Mediterranean. By the 11th Century, Spain and France were weaving linen, and silk was being woven by the Moors in Spain; England had been weaving flax and wool before the time of the Romans but did not improve the industry until the 11th Century. With the coming of William the Conqueror in the 11th Century, the emigration of Huguenots and Flemish from France in the next two centuries, the technique rapidly developed.

By the 17th Century the French had become the foremost in silk spinning and Flanders and England the leaders in woolen fabrics. Two great developments had taken place, the only mechanical improvements for at least 5,000 years, the hand loom and the Saxony wheel. At the death

RICE DOBBY CHAIN CO.

MILLBURY, MASS., U. S. A.

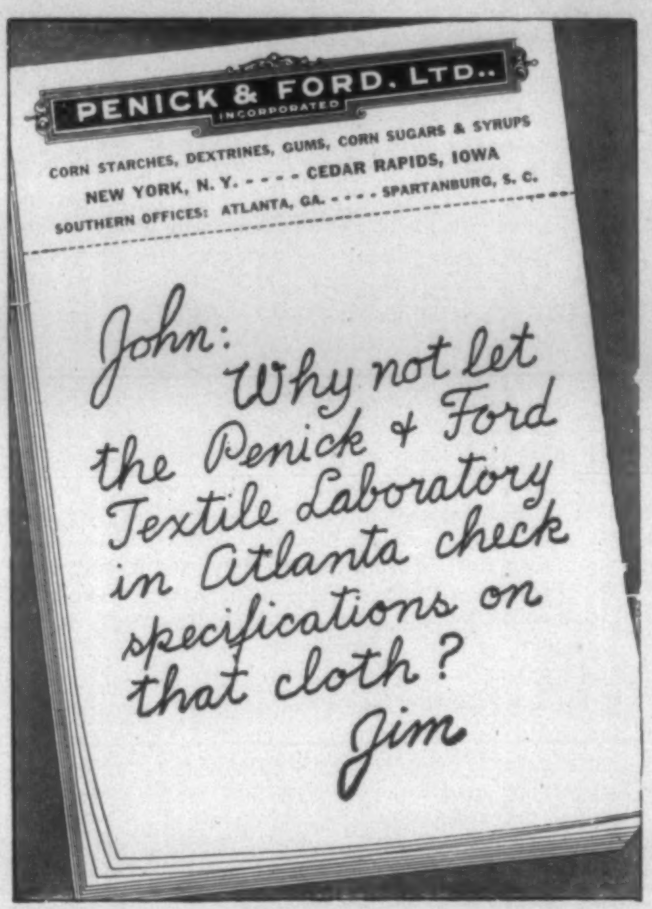


Southern Representative

R. E. L. Holt, Jr. Associates

Jefferson Bldg. P. O. Box 1474 Greensboro, N. C.

(READY TO SERVE YOU)



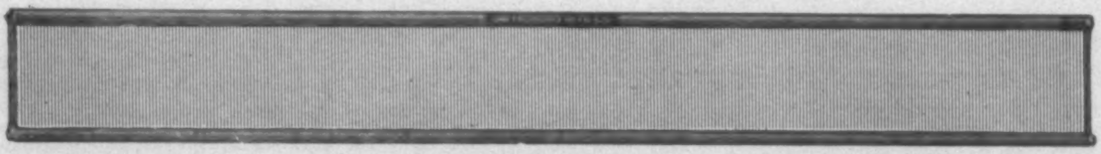
PENICK & FORD, LTD.,
INCORPORATED
CORN STARCHES, DEXTRINES, GUMS, CORN SUGARS & SYRUPS
NEW YORK, N. Y. - - - - CEDAR RAPIDS, IOWA
SOUTHERN OFFICES: ATLANTA, GA. - - - - SPARTANBURG, S. C.

John:
Why not let the Penick & Ford Textile Laboratory in Atlanta check specifications on that cloth?
Jim

LOOM REEDS

Finest Quality For weaving every fabric

Specializing in STAINLESS STEEL REEDS



also CHROMIUM PLATING

Diamond Hard — Velvet Smooth

GREENSBORO LOOM REED COMPANY, INC.

PHONE 5678 **GREENSBORO, NORTH CAROLINA**

of Leonardo da Vinci in 1519, a sketch was found of his device to spin cotton yarn. Johann Jurgen of Germany had obtained the drawing 50 years later and from it designed the flyer. By combining the flyer with a foot-driven wheel to hold the finished yarn, he brought out the Saxony wheel which, for the first time, enabled European spinners to spin cotton yarn strong enough to be used as warp thread.

The evolution of the mechanics of weaving from the two-barred loom to the hand loom of the 17th Century is but vaguely recorded, and the exact steps of progress and the points of origin are not known. The development of the loom previous to the beginning of the 18th Century, while unknown, must have covered at least seven stages: the spinning of long warp threads with a multitude of single warp ends, adoption of a roll to wind up finished cloth, a shedding motion, swinging lay and reed, building of a substantial loom frame, and the invention of a shuttle. Most of the early fundamental inventions may be attributed to the Hindus or Chinese, with modifications and improvements by the Europeans. The Hindus were known to use a wind-up roll, while both the Hindus and Chinese probably invented the first shedding motions. The warp beam is credited to the Chinese, while the shuttle was probably the result of a long series of improved versions of the notched stick first used to pass the filling through the warp. The most important invention of the early part of the 18th Century was the fly shuttle of John Kay in 1733. The fly shuttle provided a means to knock the shuttle across the loom from either side by a single pull on a cord and thus left one hand free to use in laying and beating the pick. This invention doubled the production of the hand loom and eliminated the necessity of two weavers per loom for weaving wide fabrics. Its general adoption by 1750, tended to upset the balance of the industry, as the spinners could not produce enough yarn to supply the weavers.

However, men had been working on the mechanization of spinning and, between 1730 and 1760, had brought forth ideas that were to become the basis of modern spinning methods. James Wyatt experimentally spun cotton by machine in 1730. Lewis Paul worked with Wyatt and took out a patent on a machine in 1738, and also took out a second patent on a spinning machine in 1758. Both Wyatt and Paul based their spinning machine on the use of rollers for drafting. Paul had developed and patented a cylinder carding machine by 1748.

The invention of the spinning jenny by James Hargreaves in 1764 was the keynote which led to a new era in the textile industry. The jenny, a version of the Saxony wheel, first spun yarn on eight spindles instead of one, and later was modified to spin on 16 and then 32 spindles at a time. The jenny was suitable for spinning only filling yarn, which did not require great strength, but it relieved the shortage of yarn and enabled the weavers to produce more cloth. Richard Arkwright is given the credit for the development of the modern method of spinning. He completed his first spinning frame and patented it on July 3, 1769, and in the same year established the first practical spinning mill in the world. The frames in the mill at Nottingham, England, were powered by horses and drafted by rollers and twisted by flyers. In 1771, he built another mill at Cromford with the frames powered by water, and from this the machine became known as the water frame.

Arkwright succeeded where others had failed because he realized that intermediate equipment was required to bring the yarn down to size. He invented and used the drawing frame for this purpose, equipped with his drafting rollers. He improved the card and finally established a complete series of machines, including the card, drawing frame, roving frame, and spinning frame. The entire system was patented Dec. 16, 1775.

Arkwright's system was not satisfactory for the spinning of fine yarns and led others to attempt to improve the method of spinning. This was accomplished by Samuel Crompton in 1779, by his invention of the mule. The mule was a modification of a combination of Hargreave's spinning jenny and Arkwright's water frame. The self-acting mule was patented by Roberts in 1825. The success of the water frame and the mule soon reversed the previous economic crisis; now there was too much yarn and not enough weavers and looms to use up the supply. The time had come when weaving would have to be done on a power loom. Edmund Cartwright took out his first patent on a power loom on April 4, 1785. This loom was very crude and was not made practical until 1787, when he took out his last patent on August 1st of that year. Cartwright established a factory with his looms powered by a bull, which was replaced by steam power in 1789. The power loom was delayed in its acceptance because of thread breakage due to its speed and harsh action. Sizing of the warp reduced breakage but had to be applied manually, and therefore, the loom had to be stopped very frequently. This was partially overcome in 1803, when Radcliff, Ross and Johnson patented a dressing machine and warper.

The first great American invention and contribution to the advancement of the cotton spinning industry was the invention of the cotton gin by Eli Whitney in 1793. Paul Moody in the years immediately after 1815, invented a dresser and warper, a double speeder, and a filling frame to wind filling on a bobbin. The second great American invention was the self-acting rotary loom temple by Ira Draper in 1816. In 1822, Aza Arnold invented the differential motion for roving frames, a train of three bevel gears to give uniform motion to the surface of the bobbin package as the circumference is enlarged by the successive layers of roving wound upon it. To these notable American inventions must be added the invention of ring spinning by John Thorp in 1828, cap spinning by Charles Danforth in the same year, and a stop motion for drawing designed by Samuel Batchelder shortly before 1832.

From this point on, the great inventions and developments which have made the textile industry so progressive are not to be traced to a single man but, on the contrary, are the results of groups of men working together and under the protection and with the assistance of the textile machinery manufacturing companies. It is notable that these companies, like the early inventors of the industry, are continually bringing forth new methods and new machines designed to increase production and improve the quality of the cloth and fabric so essential to modern civilization.

The Beginning of American Textiles

The textile industry in the United States did not have a chance to begin until after the War of Independence, as England discouraged by law all colonial activities which

Dixie

TEXTILE MACHINE CO., INC.

Plant Located at 801 McCormick Street

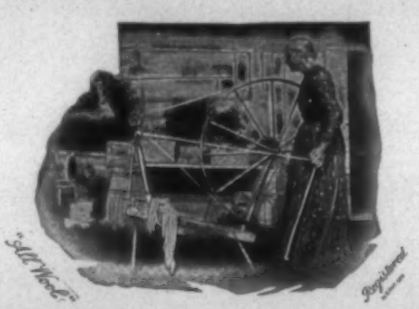
Manufacturers of

Dixie Loom Reeds and Combs
Pitch Band or All Metal

Machine Parts, Metal Dies and
Metal Stampings
Heddle Bars and Slide Rods
Made to Order

Let Dixie Loom Reeds Fulfill Your
Weaving Needs

P. O. Box 875 Greensboro, N. C.
Call 4-5458 Collect



KNOXALL

Roller, Slasher and Clearer Cloth
Endless Blankets
Rayon Slasher Jackets
Endless Revolving Clearers

EDWARD H. BEST & CO.

EST. 1888 BOSTON, MASS. INC. 1901

ATLANTA, GA.
W. C. HAMES
185 Pinecrest Ave., Decatur, Ga.
Dearborn 5974

NEW YORK
H. W. CURTIS
735 W. Crescent Ave., Allendale, N. J.
Allendale 1-3521

GREENVILLE, S. C.
WILLIAM J. MOORE
P. O. BOX 1970 TEL. 5-4820

Victor

MILL STARCH

ALWAYS UNIFORM

The Weaver's Friend

Call your
KEEVER SALES - SERVICE MAN
On Slashing Problems

CHARLES C. SWITZER
Division Manager
Greenville, S. C.

F. M. WALLACE
Birmingham 9, Alabama

L. J. CASTILE
Charlotte 3, N. C.

E. HAYS REYNOLDS
Greenville, S. C.

JAMES C. JACOBS
Spartanburg, S. C.

TEXTILE SALES DIVISION • THE KEEVER STARCH CO.
1200 WOODSIDE BUILDING, GREENVILLE, SOUTH CAROLINA
General Offices, Columbus 15, Ohio

presented a possibility of entering into competition with her working classes or which might threaten her export trade. After the Revolutionary War, there existed a strong urge to build up a textile industry, particularly in Massachusetts and Pennsylvania. The successful installation of a textile mill in America was retarded due to the attempts of England to keep secret all of the details of the machinery which had been developed in that country. This secrecy was enforced by heavy penalties to be exacted for any attempt to take out of the country any machine or its part, or any sketch or plan of such machinery. The secrecy was further maintained by prohibiting persons from leaving the country if they had any knowledge of the use or design of textile equipment.

Col. Hugh Orr settled in Bridgewater, Mass., after emigrating from Scotland in 1740, and in 1786, engaged Robert and Alexander Barr to come from Scotland to aid him in building cards, roving and spinning frames. The brothers were not textile machinists but had merely seen spinning frames in a mill in Scotland. However, they were successful in building a series of machines patterned after those in use by Arkwright. While the frames were not good enough to be operated satisfactorily, they aroused sufficient interest for the Massachusetts Legislature to grant the brothers an appropriation to cover the expense of building them, on the condition that all interested persons could examine the designs and machinery.

Drawings were made by a representative of Moses Brown, who later was to back Samuel Slater, and machines were built and bought by Brown. The card and the jenny were put into operation but the spinning frame, the first copy of Arkwright's frame to be built in America, was never used successfully. Another Scotsman, Thomas Somers of Baltimore, Md., visited England and upon his return in 1787, worked for Hugh Orr and built jennies which were used in the Beverly Cotton Mill at Beverly, Mass.

There is considerable controversy as to the site of the first cotton mill in the United States, the honor being claimed by Philadelphia, Beverly, and Pawtucket. Samuel Wetherill started a yarn mill in Philadelphia in 1775, based on a spinning jenny constructed by Christopher Tully. This jenny, while it never was made to operate properly, was the first jenny to be built in this country. The mill was closed in 1777, when the British captured the town. Wetherill again built a mill in 1787, with a carding machine and four jennies and operated the first loom on April 12, 1788. This date was slightly before the Beverly Cotton Mill was recorded as being in operation. The records show that the Beverly Mill was running a few days before April 22, 1788, but the exact date is not known. There is no doubt that the Beverly Mill was in the first building to be erected solely for the purpose of housing cotton machinery, as the Philadelphia plant was installed in an old house.

The first economically successful cotton mill, and generally credited with being the father of the textile industry of the United States is the "Old Slater Mill" in Pawtucket, R. I. This mill was built in 1793, and was based on the use of the Arkwright system. Samuel Slater was an Englishman who had been trained in textiles as an apprentice to Jerediah Strutt, partner to Arkwright. Slater spent eight years with Strutt, the latter part of the time as superintendent of Strutt's mill at Belper, England. He secretly emigrated to the United States and formed a partnership with Moses Brown, agreeing to build and operate a mill at Pawtucket. Slater spent a year constructing a complete set of frames entirely from memory but was so successful that in 1793, the firm built a new mill known today as the "Old Slater Mill."

The machines were duplications of Arkwright's equipment and the mill became the first successful introduction of the English system of spinning in this country. The equipment consisted of two cards, a drawing frame, roving frame and a water frame of 24 spindles. Later another spinning frame of 48 spindles was added. Considerable hand work was still required to prepare the fiber for spinning. As there were not any openers or pickers, the cotton had to be prepared for the card by hand. The bags of cotton were cleaned or "willowed" by spreading the raw stock over a frame with a net bottom and then beaten by hand with willow switches until it was light and fluffy. Much of the dirt would fall through the net bottom, and the remainder of the big hulls would be picked out by hand. The opened stock would then be fed to the card by hand, first pulling the handful of stock so that the fibers would be arranged more or less parallel. The handful would then be carefully placed on the surface of the breaker cylinder so that the surface would be evenly covered.

Slater had two power-driven cards in the mill, one a breaker and the other a finisher, that were of Arkwright's design with two cylinders. The breaker card was fed by hand and delivered to a box with the fleece folded by hand. The fleece was fed onto the cylinder of the finisher card by a pair of rollers which took the folded stock from the box. A trumpet condensed the carded fleece into sliver form and delivered it into a box or can. Later the practice of folding the breaker carded fleece into a box was thought to have been discontinued and a lap roll substituted, as there were brackets on the card which indicate that some type of lap roll was held in place at the delivery end. It is uncertain whether Slater started the mill with one or two intermediate machines between the card and the spinning frame. The belief is that at first only the roving frame was used and that later the drawing frame was added. The drawing frame was simply a frame which had two pairs of drafting rolls and the flyer omitted. The roving frame was similar to the drawing frame except that either a flyer or a revolving can was used to give the roving a slight twist. Probably the frame was equipped with a flyer rather than a revolving can. The roving was wound upon a spool by hand; the spool was placed upon a revolving spindle and roving guided upon it manually in layers. The spools of roving were placed in the creel of the spinning frame and rafted by rollers. Reels of yarn were then bleached by soaking in water and drying in the sunlight. The mill had its own dyehouse.

Slater built other mills in Massachusetts after the success of his first. One of these was at Rehoboth, another at Slatesville, and one in Webster. In 1822, he and his partners built a mill at Amoskeag Falls, N. H. This marked the beginning of the industrial development which later became known as the Amoskeag Mfg. Co.

The "Old Slater Mill" was a yarn mill only and following the common practice, sold the yarn to some weavers. The first power loom in this country was set up in Waltham in 1815, and was built by memory. Francis Cabot Lowell,

THE NEW

1951

POCKET EDITION of CLARK'S DIRECTORY

is now available

Price $3.00

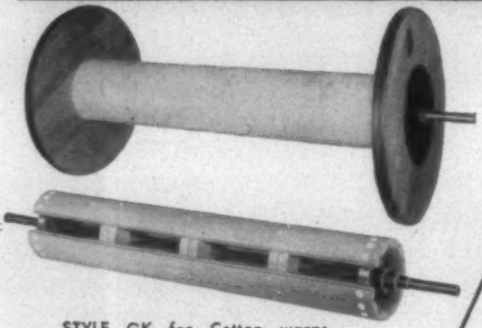
Completely Revised

ORDER NOW

☆

CLARK
PUBLISHING CO.
P. O. Box 1225
Charlotte 1, N. C.

ALLEN Series "G" Beams
for all High Speed Warpers



STYLE GK for Cotton warps, shown above. Also GR with extra reinforcement for Rayon, and GN of heaviest construction for Nylon and Synthetics.

REQUEST CATALOG

ALLEN
BEAM COMPANY

High Speed Warper Beams
Warper Beam Heads
Loom Beams
Adjustable Loom Beam Heads

General offices — 151 River Road, New Bedford, Mass.

Representatives in all Textile Localities and all Principal Countries of the World.

"GOOD WARPS ARE MADE ON GOOD BEAMS"

The New, All-Leather
TENNESSEE MULE
PICKER

*Patent No.
2,308,393
Other Patents
Pending

Is The Smoothest, Toughest Picker Ever Made!

NOTE THESE FEATURES

It is produced from a special leather never before used in a picker.

It is precision moulded so, therefore, it has no metal rivets nor over-lapping edges.

It is smooth . . . . very, very smooth . . . . which means that it will not pick up filling yarn.

It is all-leather . . . . tough as a Tennessee mule.

It will not retain heat because strategically located vents dissipate heat and eliminate the vacuum pull on the shuttle point.

It will reduce your shuttle cost. Further, you need not buy right and left hand.

PATHFINDER DRILLING MEANS TOP PERFORMANCE

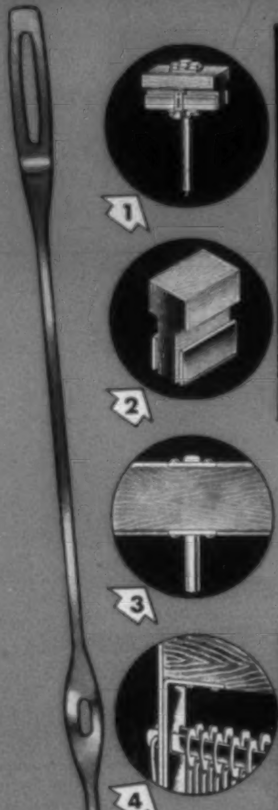
This unique drilling method is absolute assurance that the right kind of a hole is centered on the face of the picker and is automatically centered on the stick. Thus there is less loop strain, better alignment and longer life for both picker and shuttle.

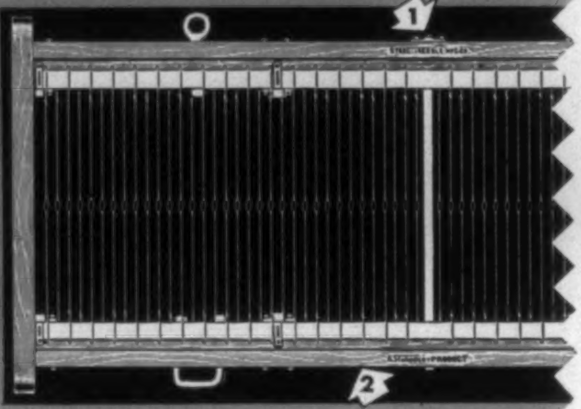
Write or Wire Us for Full Particulars

SLIP-NOT
BELTING CORPORATION
KINGSPORT • TENNESSEE

Manufacturers and Distributors Of
Power Transmission Equipment

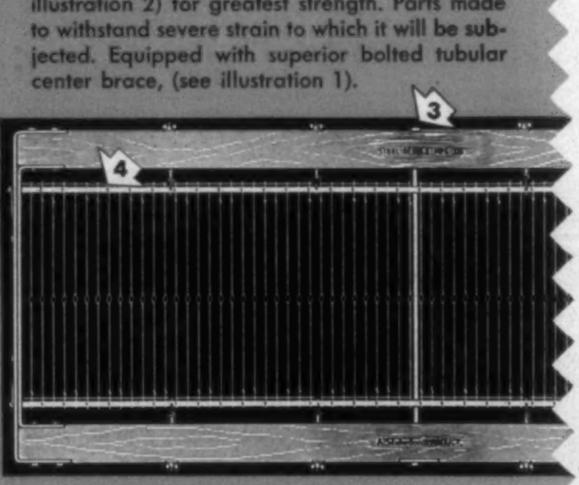
Stehedco . . .





MASTER DUCK HARNESS

Best grade Hickory, machined to a T-shape (see illustration 2) for greatest strength. Parts made to withstand severe strain to which it will be subjected. Equipped with superior bolted tubular center brace, (see illustration 1).

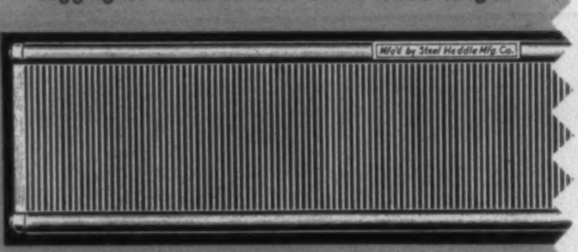


NUMBER DUCK HARNESS

Finest grade, scientifically seasoned hardwood —correct thickness and depth. Double heddle rods of ½" specially tempered steel permit maximum number of heddles — no crowding. Patented, heavy, double steel end braces, and lock hooks plus superior bolted tubular center brace add ruggedness and rigidity to frame; no sagging or variation over entire frame length.

FLAT STEEL COTTON DUCK HEDDLES

Have special, superior, smooth finish and polish, high degree of flexibility and correctly shaped and turned eye.


Mfd by Steel Heddle Mfg Co.

COTTON DUCK REEDS

Rigid construction—highly polished dent wire with rounded edges. Made in any size and number of dents. All reeds are dated and identified.

STEHEDCO and SOUTHERN *"Weave the World's Needs"*

1-1-8

of Boston, visited England and Scotland in 1811, and while there saw several installations of power looms. Upon his return to Boston in 1812, he interested Patrick Tracy Jackson and other merchants in putting up sufficient capital to start a cotton mill to be located in nearby Waltham. In 1813, a company was formed and named the Boston Mfg. Co., although often called the Waltham Co. in the early records. The mill building and spinning machinery were completed that same year, and the construction of the first American power loom began. In the Fall of 1814, the loom was erected and by 1815, was in successful operation. This mill, the Boston Mfg. Co., was not only the first mill in America to use power looms, but was also the first mill in the world where all of the processes from spinning to weaving were performed by power.

Crompton & Knowles Production At New High

Crompton & Knowles Loom Works, Worcester, Mass., in 1950 established a new high record of production, it is revealed in the firm's annual report to stockholders. The annual report states: "The improvements that we had made for several years looking to higher production, such as mechanization and rearrangement of departments, electrification of equipment, new methods generally of production, co-ordinated to give us, with little expansion of floor space, a record-breaking output which amounted, not only in dollar value, but in tonnage volume, to many times our average production for several years previous to World War II."

Sales billed to customers during 1950 exceeded the previous year by some eight per cent, the report shows. However, high costs, chiefly provisions for taxes and employee pensions, resulted in lower net earnings in comparison with 1949.

Earnings for 1950, after all charges and reserves for federal income and excess profits taxes and provision for pension payments, amounted to $3,755,104, a decrease of $828,555 from the corresponding figure of $4,583,660 for 1949. On the basis of present outstanding capital stock of 471,768 shares, net earnings were $7.96 per share. Earnings retained in the business, reinvested in plant facilities and working capital, increased from $6,421,620 on Dec. 31, 1949, to $7,939,653 on Dec. 31, 1950. Net additions to plant, property and equipment during 1950 amounted to $554,746 after depreciation of $370,558 charged to operations during the year.

Broad Woven Leaders Meet With N.Y.Q.M.P.A.

Members of the cotton branch of the Quartermaster Association's broad woven fabrics division, textiles and knitted goods industry group, met last month with officials of the New York Quartermaster Procurement Agency. The status of current procurement and industrial mobilization planning for cotton fabrics was discussed by N.Y.Q.M.P.A. staff members. Representatives of the Office of the Quartermaster General spoke on research and development projects in the cotton fabrics industry. Other subjects discussed by the group included: renegotiation, allocations, DO ratings, financial assistance, ceiling prices and controls, and inspection policies and procedures.

Members of the cotton branch who attended the meeting, part of the broad program of Quartermaster Corps-industry co-operation, included R. C. Jackson, executive vice-president, American Cotton Manufacturers Institute, Inc.; W. F. Sullivan, National Association of Cotton Manufacturers; S. F. Dribben, president, Cone Export & Commission Co. and chairman of the board, Association of Cotton Textile Merchants of New York; W. Ray Bell, president, Association of Cotton Textile Merchants of New York; Harry Hoffman, vice-president, Reeves Bros., Inc.; and Thomas Estes, vice-president, J. P. Stevens & Co., Inc. C. A. Cannon, president, Cannon Mills Co., served as chairman of the meeting.

New Waterproof Fabric Is Announced

A new waterproof fabric, made of nylon fiber and plastic, has been developed by United States Rubber Co. for use in raincoats, tarpaulins and many other products. The fabric, called Fiberthin, has exceptionally high strength and tear resistance. Scientists say it has greater strength for its weight than any other fabric ever developed. It weighs only five ounces a square yard and has a tear strength of 15 to 22 pounds with a tensile strength of 150 to 180 pounds.

and Southern

Stehedco and Southern

COTTON DUCK LOOM HARNESS EQUIPMENT

If You are Weaving, or Expect to Weave Cotton Duck

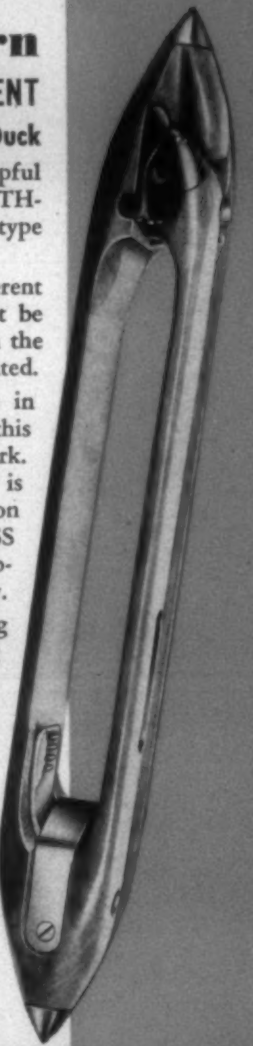
. . . You'll be interested in a highly specialized, helpful service—obtainable from STEHEDCO and SOUTHERN—for the successful weaving of this particular type of fabric.

As you know, changing over to weaving a different fabric presents problems. Many adjustments must be made. But, if these can be reduced to a minimum the headache caused by such a change, can be eliminated.

Change-over-problems are particularly evident in Cotton Duck Weaving. Due to the weight of this fabric, ordinary equipment will not do the work. Proportionately heavier loom harness equipment is required to withstand the added pounding, tension and strain. STEHEDCO and SOUTHERN HARNESS specifically designed and made for weaving this fabric will be found most economical and satisfactory.

STEHEDCO and SOUTHERN have been helping mills meet Government Cotton Duck demands long before the days of World War Two. In this present emergency, mill orders for refills of orders placed over a decade ago, have been processed and shipped without delay.

Yes, today STEHEDCO and SOUTHERN can meet your requirements on demand, and for those mills not as familiar with the details in weaving this fabric, STEHEDCO and SOUTHERN—mill trained—Field Engineers operating out of strategically located plants and offices will gladly cooperate in helping to overcome any obstacles encountered in your change-over. Phone, wire or write nearest plant.



COTTON DUCK SHUTTLE EYE

No. 45 brass, two tunnel eye with felt in back. (Interchangeable with No. 64) All Southern Shuttle eyes are cast in Southern's own new, modern foundry.

COTTON DUCK SHUTTLE (AC-9)

A regular left hand shuttle for weaving heavy yarn, equipped with a No. 45 standard wound two tunnel hole brass eye and No. 69 Four groove grip.

1-1-8

STEEL HEDDLE MFG. CO.

2100 W. ALLEGHENY AVENUE PHILADELPHIA 32, PA.

Other Offices and Plants

Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

SOUTHERN SHUTTLES Paris Plant . . . Greenville, S. C.

A Division of STEEL HEDDLE MFG. CO.

STEEL HEDDLE COMPANY OF CANADA, LIMITED

310 St. Hubert Street Granby, Quebec, Canada

EXTRA

economy
and efficiency
when you
Desize with

EXSIZE-T

Exsize-T is the *most economical* . . . *most efficient* of all desizers. Effective over a wide temperature range. Gives uniformly excellent results.

Safe! *Exsize-T* is not a harsh chemical . . . but a liquid enzyme concentrate. Easy to use. Fast in action. Write today for free booklet.

WRITE FOR FREE BOOKLET

PABST BREWERIES

"Exsize-T" is the registered trademark of Pabst Brewing Company.

* Copr. 1951, Pabst Brewing Company, Milwaukee, Wisconsin.

PABST
SALES COMPANY
221 N. La Salle Street
CHICAGO 1, ILLINOIS

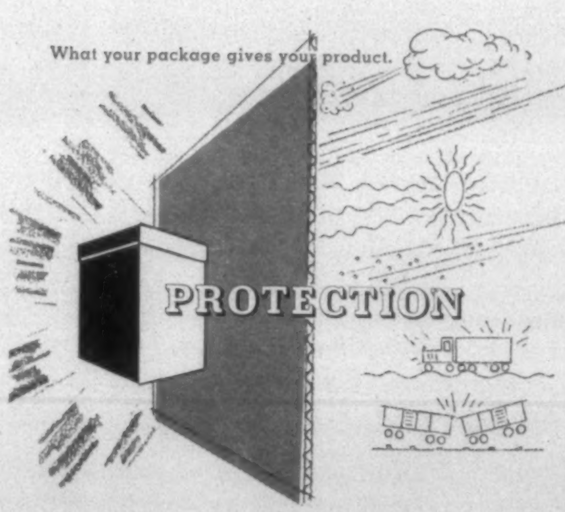
Merchants Report Pleasant-Smelling Goods Sell Faster

Odor-Treated by Sindar, Textiles, Plastics, Inks, Paint and Rubber Goods Find Ready Acceptance

Write Sindar Corporation, manufacturer of Industrial Aromati

SINDAR® Corporation
Industrial Aromatics and Chemicals
330 West 42nd Street, New York 18, N. Y.
Branches: Philadelphia • Boston • Cincinnati • Detroit
Chicago • Seattle • Los Angeles • Toronto

Packaging is important for protection—



What your package gives your product.
PROTECTION

Your product deserves a better package—*for protection*

OLD DOMINION
Box Company, Inc.
Charlotte, North Carolina

Plants
Throughout
the South

Fundamentals Of Hot Air Drying

By LEO WALTER, Consulting Engineer

Part Three — Contact Drying of Textiles on Heated Cylinders

IT was pointed out in previous articles on hot air drying that the evaporation of water or vaporization of liquid from a solid wet body such as a textile fabric after dyeing can be performed in various ways. When hot air provides the heat and carries away the vapors, this is performed by convection of heat. Drying of textile fibers by means of conduction, commonly called "contact drying," is done in a totally different way, with which I will deal in the following in some detail. In contact drying, the solid material comes into intimate contact with a heated metal body, and heat flows from the hotter substance to the wet cooler substance to be dried. In addition to the above two main methods, radiation drying or infra-red pre-drying comes recently more into use in textile manufacturing. When using radiation drying methods a solid heated body radiates heat, which heat rays have a heating and drying effect on a wet substance being in their path. Special electrical radiation panels are used for pre-drying of cloth, and this method seems to have a great future. Special electric lamps are used for infra-red drying of fabrics, or gas-fired radiant heating units are applied.

Contact Heating and Drying

In drying cloth, heat can be transmitted by contact with hot platens, or by pressing the fabric against rotating hot cylinders or rollers. In textile manufacture steam-heated rollers or cylinders are used to a considerable extent in finishing operations. By describing first what happens in a simple, steam-heated cylinder dryer, the basic idea can be gained for multiple-cylinder or stack dryers. The main factors to be considered are speed of rotation, heat transfer, cylinder surface temperature, contact pressure of fabric on roller surface, and air volume and velocity around the cylinders or rollers.

Common Troubles with Drying Cylinders

It may be advisable, before entering into discussion of the drying factors influencing cylinder efficiency, to deal briefly with a few common sources of trouble in cylinder operation. Some people seem to think that as steam pressures used are only a fraction of boiler pressure, that less care is necessary, which is wrong, of course. All auxiliary gadgets, whether prescribed by law or used for practical considerations, must be carefully and periodically inspected, tested and repaired, where necessary, in order to avoid explosions. Into this category fall steam reducing valves, pressure gauges, safety valves (relief valves), and stop valves. To guard a safety valve against choking, fouling or sticking, is common sense. So is, or should be, supply of dry steam into each cylinder, free from suspended water droplets and impurities. The simple use of steam separators with suitable steam traps in front of the main reducing valve will usually greatly improve steam quality, and avoid water hammer within cylinders, a very serious occurrence. More will be said about cylinder condensate drainage in the following. Another general ruling, which, however, is not always encountered in practice, is to start cylinder dryers before steam is turned on, but to shut down steam input immediately the machine is stopped. Assuming that the above general working conditions of drying apparatus are, or have been made favorable, the following factors influence the result.

Speed of Cylinder Rotation

The speed at which heated cylinders or rollers rotate is a very important variable drying factor. Change of speed of rotation obviously varies the rate of drying of a fabric. The time of contacting the hot drying surface is the decisive factor for regulating the intensity of evaporation of moisture from the fibers, and must not be too short. In connection with the time of contact is also the drying contact surface, i.e., the angle at which the fabric is wound around the cylinder when passing over the heated surface. Time of contact, surface area of contact, specific pressure of contact are a few important factors for variation of rate of drying.

Cylinder Surface Temperature

The temperature differential between the yarn or fabric and the cylinder surface have to be chosen to provide maximum output from a cylinder dryer at minimum cost. Actual cylinder surface temperature must, however, keep within the allowable temperature range, otherwise the fibers might get overheated and damaged, or finish, color and/or luster might suffer from excess drying. For steam-heated roller dryers the cost of drying depends very much on their thermal efficiency, i.e., steam consumption per unit weight of dried material. Steam consumption of steam-heated cylinder dryers varies widely from textile mill to textile mill, and also according to the moisture content and nature of the fabric. Steam pressure used, speed of rotation, efficiency of heat transfer from steam via cylinder walls to the material and other factors, such as idle machine times and irregular loading influence actual steam consumption. Where steam consumption is unknown, the fitting of a portable steam meter, or measurement of the condensate from steam traps produces reliable figures, to be compared with standard figures, given by the manufacturers of the dryer. Over-all drying efficiency is, of course, influenced from the nature of the textile material, quality of fibers, thickness of fabric, together with moisture content when entering, and regain. The influence of working conditions on surface temperatures of heated cylinders is much more pronounced than usually realized by the practical textile plant engineer, and the following might act as an eye opener for possible improvement in dryer operation.

Basic Principles of Contact Drying

Drying of textile fibers by contact heat differs from hot air drying in the way heat is brought into action. Fig. 9 shows a sectional view through a drying cylinder heated by steam, as used for drying of semi-solid chemical material, such as soap, or foodstuffs (such as starch, yeast, potatoes). Similarly a piece of fabric is dried by being run direct over the hot cylinder surface, but although it consists of textile fibers, the general principles will be alike. In drying of fabrics, one side of the web is in close contact with a section of the hot cylinder surface, while the other side of the fabric is exposed to the air of the room. The latter has great influence on proceeding of moisture evaporation.

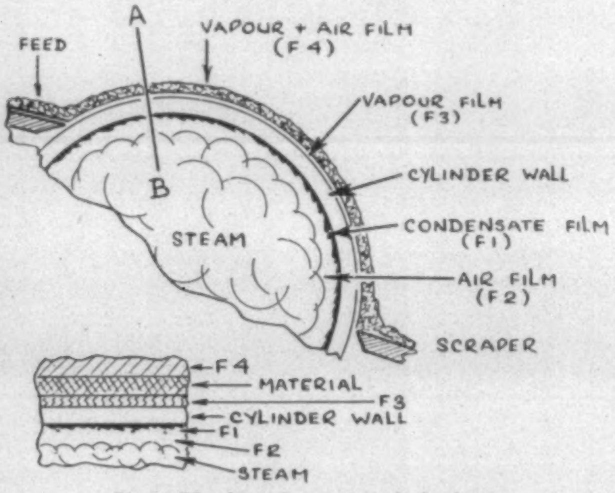


Fig. 9—Film theory for rotating cylinder dryer.

Looking at Fig. 9, the flow of heat, and heat transfer from steam as the heating medium, to the fabric as the heated substance proceeds as follows: steam enters the drying cylinder via a trunion, and gives up its latent heat by condensing within the cylinder space. Dry steam, saturated or with very slight superheat should be used at lowest possible steam pressure, because the latent heat of saturated steam is greater at lower pressures, and is the only heat that matters for producing the hot cylinder surface. It is not as well-known as it should be how important the efficient removal of condensate, and of gas and air within the steam is from textile drying cylinders, or stack rollers. The so-called "film theory" says that various layers of films are formed at the inner cylinder wall, which films are detrimental to good heat transference, and must be removed. In Fig. 9, a condensate film F_1 and an inner air film F_2 make heat flow from the condensing steam via the cylinder wall to the outer cylinder surface difficult. Reduction, or better, elimination of these two inner films by efficient trapping of condensate as soon as it forms, and by air-venting of cylinders by means of automatic air vents, which allow air or gas enclosures to escape from cylinders are most important for efficient dryer operation. An efficient method of steam trapping and air venting of a horizontal bank of drying cans is shown in Fig. 10. The hollow frames supplying steam are fitted with air collecting vessels, on top of which is an automatic air vent. A large ball float drains the condensate from the condensate header. Fig. 11 illustrates the condensate collecting buckets and pipes on slasher cylinders, and it is most important to check from time to time the performance of these buckets, otherwise waterlogging of the slasher cylinder might occur, causing undertemperature with reduced output, or imperfect yarn sizing. Where other means, such as dip pipes, are used, same must be kept in good working order.

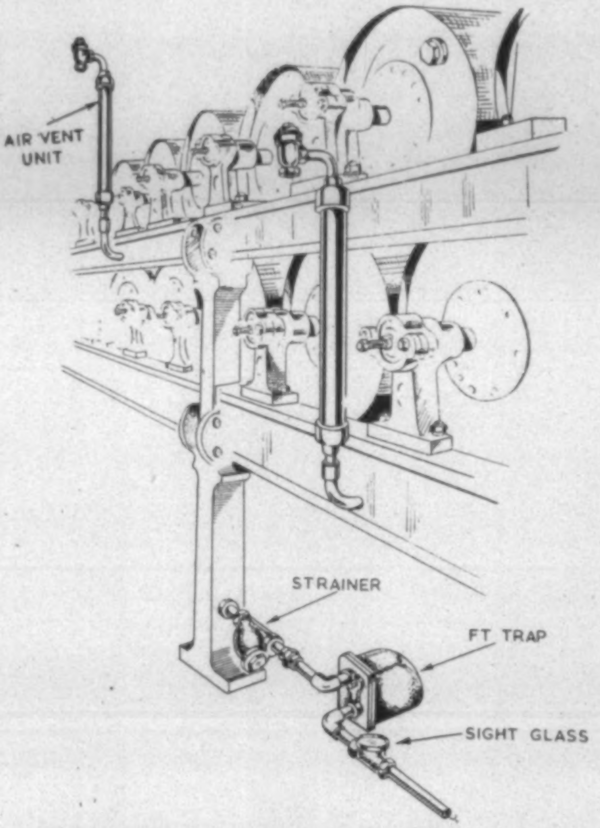


Fig. 10—Condensate draining and air venting of horizontal bank of drying cans.

Rate of Drying

The effect of heat, which has penetrated across the cylinder wall, is decisive in many ways for the rate of drying. Looking again at Fig. 9, heat has to pass across an outer film of vapor F_3 before it can enter the fabric and has to overcome another vapor and air film F_4 before it escapes in the open air. More will be said later about means to minimize the effects of these films F_3 and F_4 in order to obtain the desired vigorous heat flow. The rate of drying depends also on the shape of the outer cylinder surface and on the finish of the contact surface. Larger cylinder diameters allow better close contact between the fabric and also make higher contact pressure between heated surface and dried web possible. Cylinder and roller surfaces should be abso-

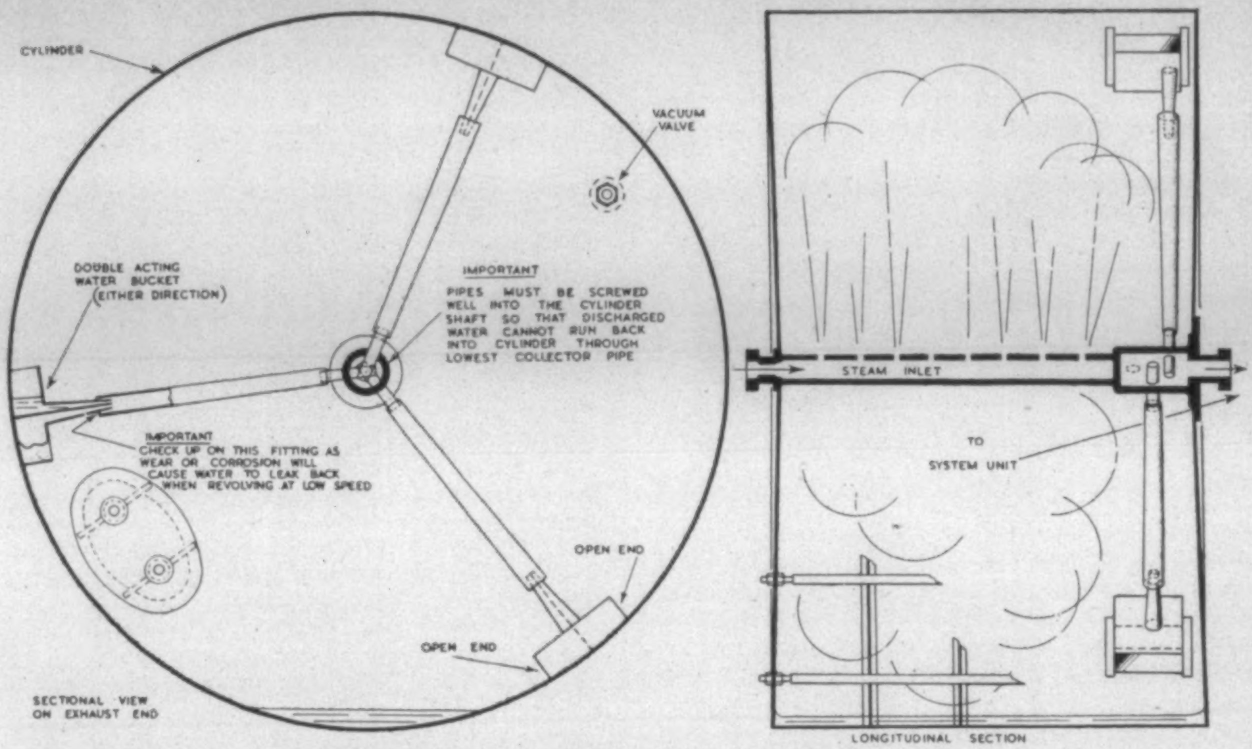

CYLINDER
VACUUM VALVE
DOUBLE ACTING WATER BUCKET (EITHER DIRECTION)
IMPORTANT
PIPES MUST BE SCREWED WELL INTO THE CYLINDER SHAFT SO THAT DISCHARGED WATER CANNOT RUN BACK INTO CYLINDER THROUGH LOWEST COLLECTOR PIPE
IMPORTANT
CHECK UP ON THIS FITTING AS WEAR OR CORROSION WILL CAUSE WATER TO LEAK BACK WHEN REVOLVING AT LOW SPEED
OPEN END
OPEN END
SECTIONAL VIEW ON EXHAUST END
STEAM INLET
TO SYSTEM UNIT
LONGITUDINAL SECTION

Fig. 11—Arrangement of condensate collecting buckets and pipes of slasher cylinders.

lutely even, and for this reason machined to a very fine surface finish and polished.

Air Venting of Cylinders

Fitting of automatic air vents to drying cylinders is a specialized job and requires consideration of existing steam inlet and condensate drainage outlet from the cylinder.

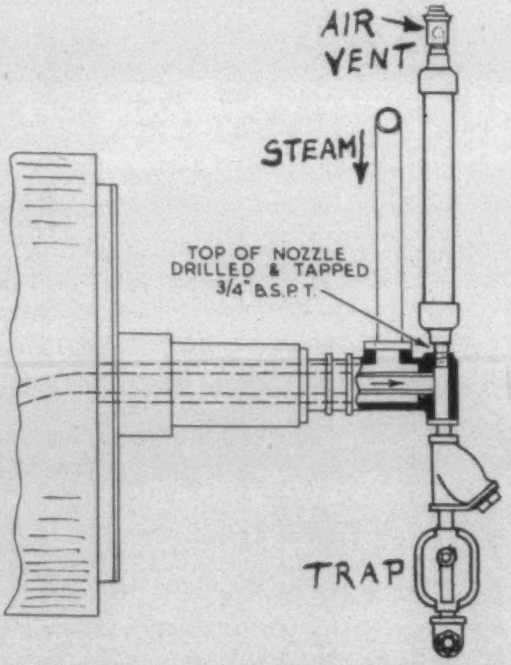


Fig. 12—Fitting of air vent unit to trunion nozzle of drying cylinder.

Fig. 12 illustrates a special unit, to be fitted to existing cylinders having steam inlet and condensate outlet at the same side. On top of the nozzle piece sits an air collecting pocket, with the automatic air vent fitted at the highest point. The low tapping of the nozzle piece leads to a strainer and to a ball float steam trap. It is notable that the presence of larger air or gas quantities in the steam space of any heating appliance reduces the temperature of the steam-air-gas mixture without influencing pressure indication. Steam pressure and temperature of saturated steam correspond only then correctly when the steam is dry saturated and free from air and gases. Indication of a pressure gauge on the steam inlet pipe to cylinders is only a reliable measure for cylinder surface temperature if automatic air venting is applied.

Correct Cylinder Surface Temperature

Cylinder surface temperature can, and should, be measured by means of surface thermometers. These instruments, which are available from instrument makers, work on the thermo-couple principle, whereby two metal wires are fused together and create a minute electric current when brought into contact with a heated surface. The electro motoric force is proportional to temperature and a galvameter scale can be calibrated in centigrades for direct temperature readings. These surface thermometers are inexpensive and simple instruments and deserve widest use in textile mills for periodic checking of cylinder or can surface temperatures.

Tests carried out disclose often uneven surface temperatures across the cylinder width. In general, temperature is lower at the ends and higher in the middle of a roller, because heat losses from uncovered end surfaces reduce temperature of exposed parts. Numerous tests carried out revealed that frequently distribution of surface temperature is irregular. A cylinder might have hotter or cooler spots, caused by uneven steam condensation inside or by partial waterlogging. The remedy is improved condensate drainage

BEST SOURCE IN THE SOUTH

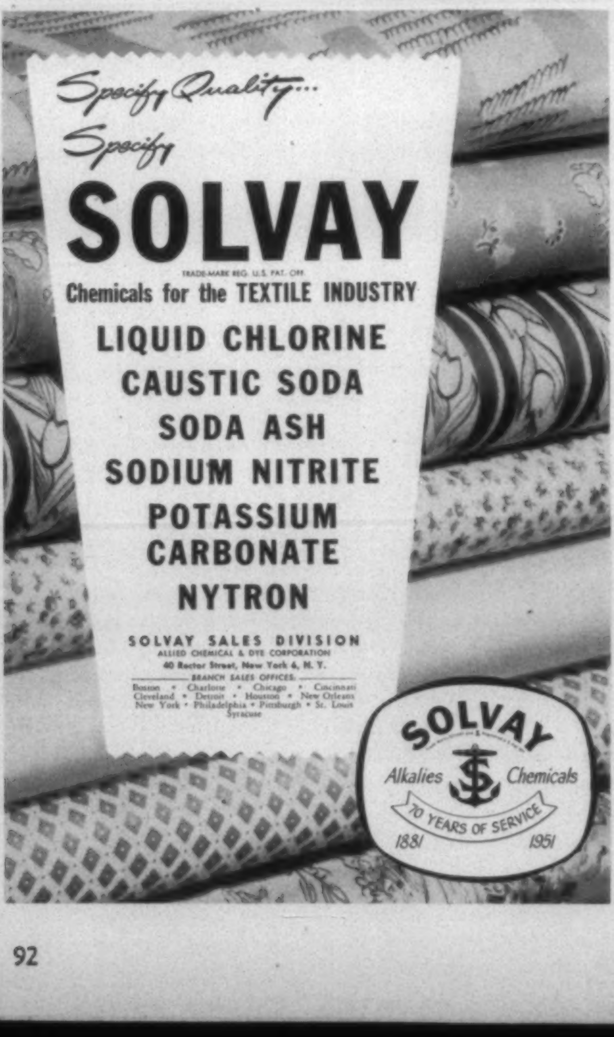
MANHATTAN RUBBER COVERED ROLLS

Textile mills and finishing plants throughout the South are saving time and getting better quality rolls from our North Charleston mill.

Rely on Manhattan Rubber Covered Rolls for dependable day-in, day-out service. They maintain uniform density, squeezing out acid or alkali solutions, hot or cold. Your production keeps rolling.

RUBBER LINED TANKS, PIPE AND FITTINGS
RUBBER AND ASBESTOS PRODUCTS

RM RAYBESTOS-MANHATTAN, INC.
N. CHARLESTON, S. C.



Specify Quality...
Specify
SOLVAY
TRADE-MARK REG. U.S. PAT. OFF.
Chemicals for the TEXTILE INDUSTRY
LIQUID CHLORINE
CAUSTIC SODA
SODA ASH
SODIUM NITRITE
POTASSIUM CARBONATE
NYTRON

SOLVAY SALES DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.
BRANCH SALES OFFICES:
Boston • Charlotte • Chicago • Cincinnati
Cleveland • Detroit • Houston • New Orleans
New York • Philadelphia • Pittsburgh • St. Louis
Syracuse

SOLVAY
Alkalies Chemicals
70 YEARS OF SERVICE
1881 1951

and sometimes steam circulation on rollers of smaller diameters.

Dryer Efficiency

It is obvious that temperature of the cylinder surface is always somewhat lower during the drying action than when the machine runs without load or stands still during idle periods. During drying of textile goods, the latter take out heat continuously, whereas a standing or periodically underloaded machine will get hotter up to near steam temperature. Efficiency of a dryer, however, depends on heat *utilized* for drying purposes. The amount of useful heat depends on temperature differential between fabric and cylinder on load of the machine and absence of idle periods.

The enemies of thermal dryer efficiency are heat losses. They occur during heating up from cold in the morning, during re-heating after a break, and during idle machine times. These heat losses can be reduced, and all such heating-up and standby heat losses should be carefully investigated. The provision of a time schedule, to which foremen and operators have to adhere, and fitting of running time recorders will be of great value. Insulation of end surfaces of cylinders, lagging of steam supply pipes, the use of tight stuffing boxes, without increasing friction and power consumption are good means for improving thermal efficiency.

Moisture Content of Goods

The deciding point for machine output is the moisture content of the goods to be dried. Obviously, the less moisture the fabric contains per square inch contact with the cylinder surface, the quicker will the fabric dry and the greater can the machine speed be. Utmost care must therefore be taken to extract mechanically as much moisture as possible before heat is applied for drying.

Heat is also required to heat up the textile fibers to the temperature required for evaporation. Most textile goods have a specific heat of 1.35 (compared with 1.0 for water), in B.T.U. per pound weight per one degree Fahrenheit temperature change.

Cylinder drying has one thing in common with hot air drying: the evaporated moisture from the fabric or other substances must be carried away by currents of air. A heated cylinder itself cannot absorb water vapor driven out from the fabric and this can only be done by air. There will always be a thin film of vapor between cylinder and fabric and a greater amount of water vapor above the upper fabric surface, which moisture must be dissipated.

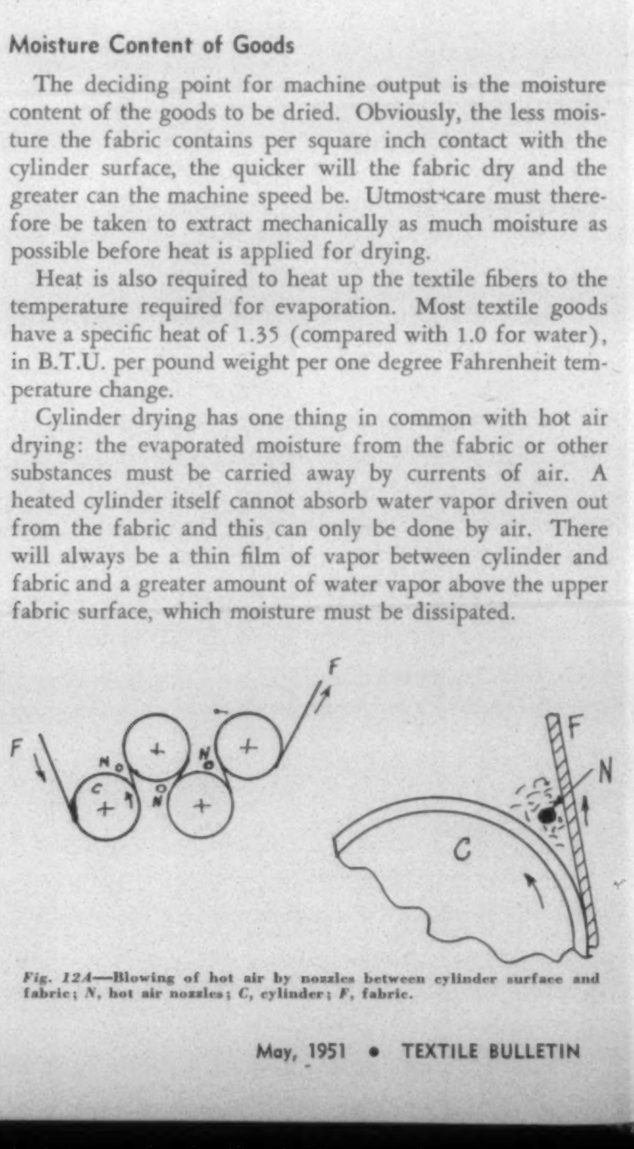


Fig. 12A—Blowing of hot air by nozzles between cylinder surface and fabric; *N*, hot air nozzles; *C*, cylinder; *F*, fabric.

Fig. 12A shows a thin space between cylinder and lower fabric surface which is filled with water vapor, which latter is carried with the fabric until it leaves the dryer surface and is then carried away by the air. Evaporation is thus continuous only on the upper fabric surface and the vapor is all the time carried away by air currents. An artificial increase of air velocity of these air currents will considerbly increase drying effect. This is done sometimes in paper making machines, where hot air is blown in between cylinder and web space, and on to the upper web surface in order to increase the air volume to absorb and to carry away the vapors. Blowing of hot air between cylinders has, however, not been applied to cylinder drying of other goods to a greater extent, although it is highly recommendable.

The practical conclusions to be taken from the above are:

(1) Use the correct steam pressure and temperature in cylinder drying and finishing, which will give maximum evaporation. Keep steam supply pressure steady. Do not use superheated steam.

(2) Check from time to time wetness of goods entering a roller dryer by weighing samples before and after passing through the machine.

(3) Make the contact between goods and hot surface as good as possible by applying the right contact pressure.

(4) Regulate the machine speed so that neither over-drying nor under-drying results.

(5) Avoid anxiously idle periods of machines. Turn steam off during standstills.

(6) Exhaust the saturated air from above the machines by means of exhaust fans, hoods, etc. Remove stale humid air by blowing in dry, hot air from heaters. Produce air movement over contact dryers for carrying away evaporated vapors by fitting exhaust fans.

(7) Feed dry saturated steam to machines and drain supply pipes from condensate before steam enters the cylinder dryer. This is very important for presses, as also is quick removal of condensate. If a press becomes partly waterlogged, steam space gets reduced and press surface temperature falls with consequent reduced output.

Comparison of Cylinder with Hot Air Drying

When drying a fabric on steam-heated rollers or cylinders, continuous webs of material are brought into contact with freshly heated cylinder surfaces. The rate of cylinder drying is thus much more rapid than when using warm air in a drying room, or apparatus. Contact drying thus becomes an instantaneous process action, whereas hot air drying can be rather classified as a more lengthy process.

The intensity of heat input into the drying process is usually many times bigger with cylinder drying where rate of drying is intensified by using a large heating surface. This great intensity of heat used is necessitated from the very short time that the particles of the goods are in contact with the heated roller. Whereas the various stages of drying, namely, evaporation of surface moisture, then of moisture between fibers, and finally moisture within the fibers, occur in hot air drying of textiles during a longer time interval, they are concentrated in a roller or cylinder dryer into a much shorter interval, depending on machine speed (Fig. 13, Page 94).

Thermostatic Control of Cylinder Surface Temperature

Automatic temperature control of drying cylinder surfaces is highly desirable, because it avoids over-drying and waste

Maid-of-Cotton

Miss Jeannine Holland of Houston, Texas, was selected Maid-of-Cotton for 1951. Textile manufacturers select Burk-Schier Wet Processing Agents for dyeing and finishing yarns and fabrics made of cotton.

AMERICAN COTTON MADE IN U·S·A

BURKART-SCHIER CHEMICAL CO.
Manufacturing Chemists for the Textile Industry
CHATTANOOGA, TENNESSEE

PENETRANTS • DETERGENTS • SOFTENERS • REPELLENTS • FINISHES

of steam and fuel. It is, however, not always easy to control surface temperatures of rotating cylinders heated by steam.

The difficulties in applying automatic temperature control to cylinder drying is threefold: *firstly,* temperature distribution on the cylinder surface is not uniform and it is not easy to find a representative surface point for average temperature where a detecting controller element could be located; *secondly,* friction would be likely to falsify temperature measurement and detection of change of surface temperature when pressing a detector roll too heavy against the cylinder; *thirdly,* the impulses from change of temperature of the hot junction of a thermocouple are very small and require efficient and rapid magnification.

The use of magnetic amplifiers or of electronic relays makes it today possible to control automatically steam input into the cylinder, derived from a detecting element slightly pressed against the cylinder surface. Horseshoe types or detector roller types of thermocouples produce electric signal currents in case of change of cylinder surface temperature. After magnification of these detecting impulses, either an electro-pneumatic relay with diaphragm control valve controls steam input, or a motorized valve works in conjunction with an electronic amplifier. The wider use of the above control methods depends on lowering the price of the control outfit. It seems that for some time to come the less efficient but cheaper method of hand control of steam supply by using a quality pressure gauge will prevail, especially for stack rollers.

Cylinder Drying with Air Movement

The previously mentioned improved drying output, achieved by means of hot air blown into the stagnant air spaces between rollers and fabric, seems to have a big future. One specialized dryer manufacturer in England has after years of research brought a special hood on the market, which encloses the cylinders, but at the same time produces the desirable hot air movement. The results are so encouraging that no doubt other manufacturers will follow, and it is also very likely that progressive works engineers will build their own "accelerators" for existing roller dryers. Another point in connection with the above, which is often left unconsidered, is the use of small unit air conditioners, mounted near a cylinder or roller dryer, which apparatus delivers hot air at the correct humidity content to the hot air nozzles. What ultimate effect the increased use of induction heating, or the use of radiant heat, will have on cylinder dryers cannot be foreseen at the moment.

Dryer Investigation

Obviously, exact measurements are required in order to obtain a picture of how a drying apparatus really works. It is, therefore, the first duty of the conscientious textile engineer to eliminate guesswork from dryer performance. The following are a few tentative questions, applicable to most types of dryers, which should be answered before any attempts at improvement are made:

(1) What is the allowable maximum and advisable safety margin for drying temperatures? Is temperature kept constant all the time, or has it to be reset for different products?

(2) Which time-temperature curve is desirable for the product?

(3) What is the exact nature and quality of the product to be dried? Is there any tendency towards surface hardening, discoloration, decomposition, etc., by reason of undue heating?

(4) Is the moisture content of products entering and leaving the dryer subject to variation, and if so, within what limits and how is it measured?

(5) What is the humidity of air leaving the dryer or used for recirculation? How is it measured? What is the humidity of air entering the dryer for hot air drying?

(6) If hot air drying, are the fan data shown on nameplate being used or are details obtained from the makers of the dryer? What is the speed of air in various sections of the dryer and how is it measured?

(7) If a cylinder dryer is used, what are the dimensions of cylinders, velocity of surface, etc.?

(8) If a conveyor dryer is used, what is the normal

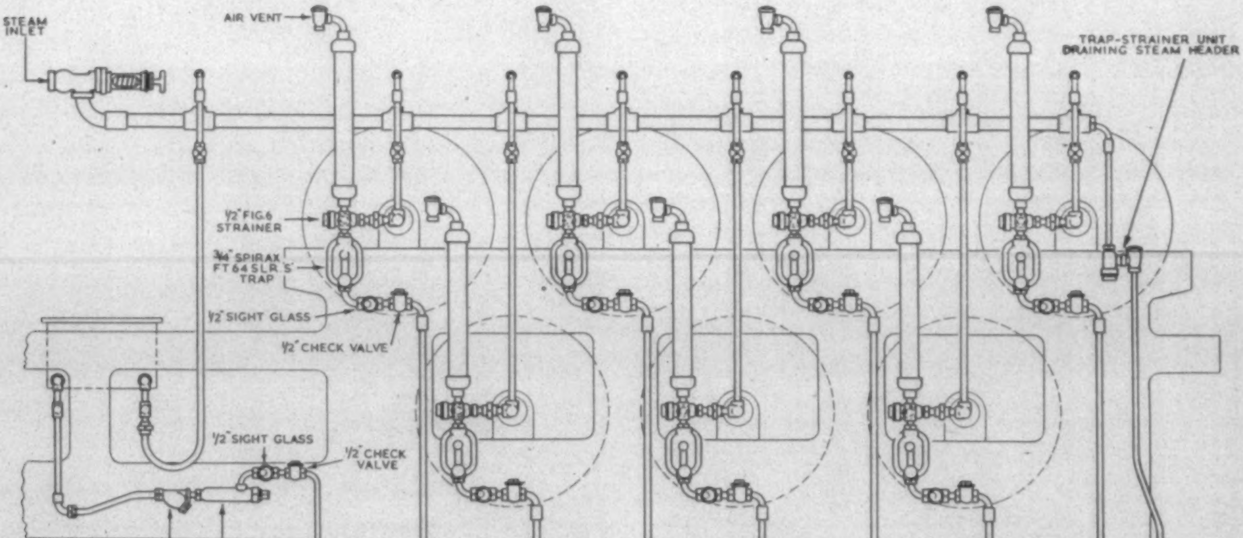
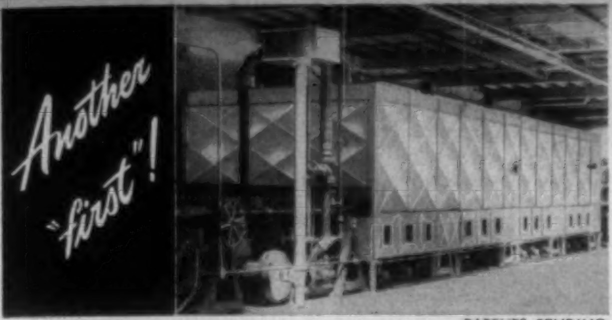


Fig. 13—**Air vents and steam traps on slasher.**



PATENTS PENDING

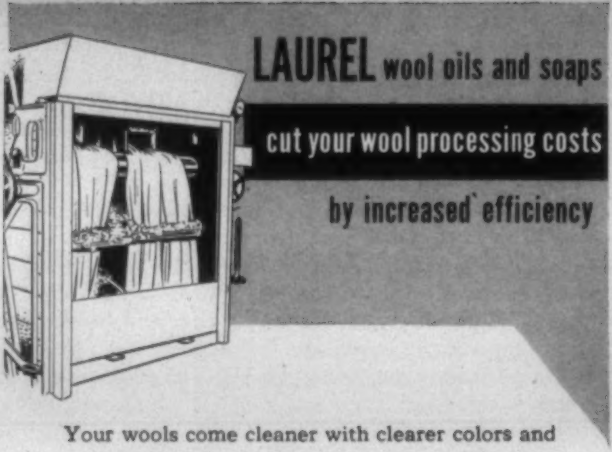
COMBINES the advantages of 3 types of oven-heating:
(1) INFRA-RED RADIATION (2) CONVECTED HEAT
(3) HEATED AIR—with added turbulence

CARBOMATIC "UNA-RAY" OVEN

Greatly increased efficiency! For example: *40* linear feet of "Una-Ray" Oven equal the productive capacity of *70* feet of a conventional oven-type. Saves thousands of dollars in equipment cost and operational economies. No burning, scorching, spotting or marking of goods. No crocking. No "gas fading" or color migration. Uniform color is insured.

A general-purpose oven (of any capacity needed) that provides accurately-controlled working temperatures up to 550°F. For drying; drying and curing in one operation; resin fusing; Nylon setting, etc. *Write for Bulletin BT- 5.*

CARBOMATIC CORPORATION • Pioneers in Textile Infra-Red
24-81 47th Street Long Island City 3, N. Y.
Southern Branch: Textile Specialty Co., Greensboro, N. C.
New England Representative: H. E. Linderson, 35 Westminster St., Providence, R. I.



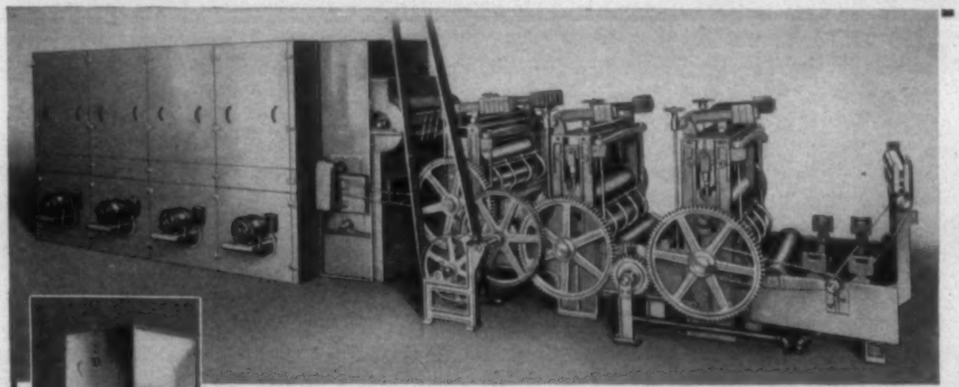
LAUREL wool oils and soaps
cut your wool processing costs
by increased efficiency

Your wools come cleaner with clearer colors and softer, loftier hand. Your "firsts" production goes up with Laurel Wool Oils and Soaps because they meet the exacting requirements of lubricating, scouring and fulling with an unusual degree of efficiency and safety. Easy to apply, easy to remove. Write today for recommendations to fit your particular operation.

Laurel Wool Oils • Laurel Scours • Laurel Fulling Soaps

textile soaps, oils, finishes

LAUREL SOAP MANUFACTURING CO., Inc.
Established 1909
Wm. H. Bertolet's Sons
Offices: *2607 E. Tioga Street, Philadelphia 34, Pa.*
Warehouses: *Paterson, N. J., Chattanooga, Tenn., Charlotte, N. C.*



☆ **Designed to Meet Varying Production Requirements**

Conveniently located inspection doors at doffer end.

SARGENT'S
Flexible • Modern • Efficient
BACKWASHER and BACKWASH DRYER

LARGEST MANUFACTURERS OF STOCK DRYING AND WOOL WASHING EQUIPMENT IN AMERICA

BACKWASHER—Available with one to five bowls. 44" wide bowls give increased liquor capacity. SARGENT'S rearrangement of top squeeze roll levers allows easy accessibility for operator; permits more than double usual number of ends to run through machine. Convenient working space provided by development of pneumatic loading for squeeze rolls, eliminates weights, rods, springs and adjusting wheels.

BACKWASH DRYER—Available with 29" or 44" aprons. Wire cloth or perforated plate aprons assure softer feel, better color, greater fibre strength. Warm air circulated by motor driven pressure-type fans passes alternately through extended surface heating coils and fibres. From 14 to 60 ends dried at one time. Available in production capacity of 100 to 600 pounds per hour, with 3, 4, 5 or 7 circulating fans.

Write for Complete Details

SINCE 1852

C. G. SARGENT'S SONS CORPORATION
Graniteville, Massachusetts, U.S.A.

REPRESENTATIVES

F. E. WASSON
519 Murdock Rd.
Philadelphia 19, Pa.

A. L. MERRIFIELD
215 Grove Ave.
Cincinnati 15, Ohio

W. S. ANDERSON
Carolina Specialty Co.
Charlotte, N. C.

M. F. BECKER & ASSOCIATES
122 So. Michigan Ave.
Chicago, Ill.

HUGH WILLIAMS & CO.
47 Colborne St.
Toronto 1, Canada

maximum possible, and lowest conveyor speed? What is the weight of material placed on conveyor in pounds per square foot of conveyor surface? Is there a constant conveyor speed or is it varied according to the product? What causes machine stoppages and how often do they occur?

(9) What time is taken to heat up from cold, or after breaks?

(10) Is pre-drying of the product applied? If so, how, and is any increase possible?

(11) What are the steam pressures and temperatures, and are there any means for steam trapping, air venting, or returning condensate to boiler?

(12) Which measuring and/or controlling instruments are fitted? Are these permanent or temporary?

(13) What are the results of measurement of air temperature, relative humidity of exhaust air, of air speed, of steam consumption, etc.?

(14) Does there exist a blueprint or rough dimension sketch of the dryer?

By answering the above questions, a fairly good idea should be obtained of how a dryer works, and where improvements are indicated. Owing to the higher content of latent heat in steam of lower pressure, there is no need to use high steam pressure for cylinder dryers, since these have sufficiently great heating surfaces for transferring the required amount of heat, and possess good-sized steam supply pipes to convey the steam quantity at lower pressure.

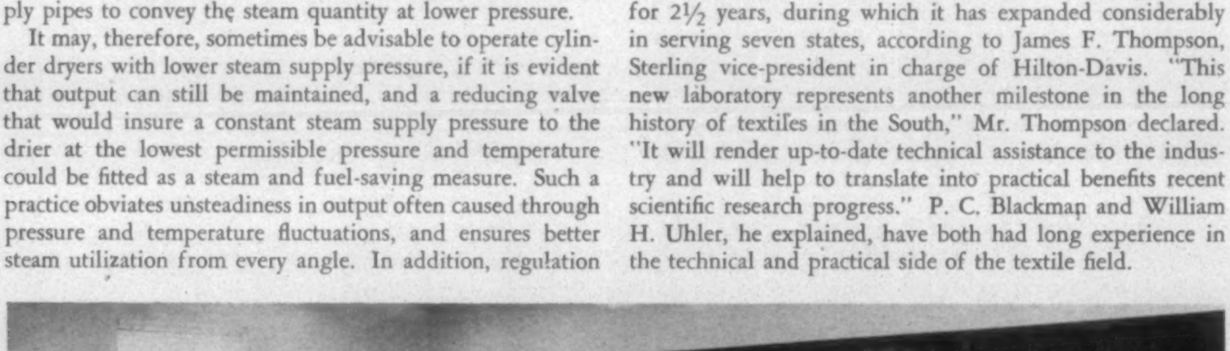
It may, therefore, sometimes be advisable to operate cylinder dryers with lower steam supply pressure, if it is evident that output can still be maintained, and a reducing valve that would insure a constant steam supply pressure to the drier at the lowest permissible pressure and temperature could be fitted as a steam and fuel-saving measure. Such a practice obviates unsteadiness in output often caused through pressure and temperature fluctuations, and ensures better steam utilization from every angle. In addition, regulation by manual control is more easily performed, while in the case of automatic control, low steam-supply pressure is always advisable, since it increases the "controllability" of the drying apparatus and enables the use of less elaborate control instruments, with the achievement of closer results.

In conclusion, it should be stated that thermal efficiency and over-all dryer efficiency can usually be improved at the same time. By increasing the rate of heat transfer of cans or cylinders, either dryer output will be raised, or less steam will be used for the same output. The surest way of improving a cylinder or roller dryer is, however, to investigate, whether the apparatus will work under reduced steam inlet pressure. Many a cylinder dryer works with unnecessarily high steam pressure, which has been introduced under the wrong impression that this speeds up output. Most cylinder dryers and stack dryers have, however, been designed with sufficient flow of areas for low-pressure steam.

New Laboratory For Textile Dyes

Official opening ceremonies for one of the South's newest and most advanced textile laboratories were held May 5 by the Blackman-Uhler Co., Spartanburg, S. C., Southern representatives for the Hilton-Davis Chemical Co. Division of Sterling Drug, Inc., located in Cincinnati, Ohio.

The laboratories are situated at 182 Ezell Street in Spartanburg. Blackman-Uhler has been associated with Hilton-Davis, producer of dyestuffs, intermediates and pigments for 2½ years, during which it has expanded considerably in serving seven states, according to James F. Thompson, Sterling vice-president in charge of Hilton-Davis. "This new laboratory represents another milestone in the long history of textiles in the South," Mr. Thompson declared. "It will render up-to-date technical assistance to the industry and will help to translate into practical benefits recent scientific research progress." P. C. Blackman and William H. Uhler, he explained, have both had long experience in the technical and practical side of the textile field.



A general view of the new laboratory facilities which were made available early this month by Blackman-Uhler Co. for the Southern textile industry.

Laboratory assistants working with new apparatus in the recently-opened laboratory of Blackman-Uhler Co. at Spartanburg, S. C.

The laboratory itself, described as extremely large for a service laboratory of its type, has been supplied with the latest, complete, scientific equipment for the testing of dyes and for experimental work. It is staffed with graduate research and development chemists. Installation at Blackman-Uhler includes a fadeometer for checking the light-fastness of colors, an acid-ager, a printing machine, padder and a package dyeing machine.

Blackman-Uhler receives from Hilton-Davis finished dyestuffs, after which it matches colors and shades for various textile mills in the South, in addition to rendering technical service to meet individual requirements. Distribution is facilitated by an enlarged sales force and staff, supplied with new staff cars and trucks.

Offer Coated Cotton Fabrics Recommendation

Printed copies of "Simplified Practice Recommendation 242-51, Vinyl and Pyroxylin Coated Cotton Fabrics." are now available, the Commodity Standards Division of the Office of Industry and Commerce, U. S. Department of Commerce, reported recently.

This recommendation was proposed by the Plastic Coatings and Film Association, as a result of a survey which disclosed that more than 76 types and styles of vinyl coated fabrics and more than 88 types and styles of pyroxylin coated fabrics were being produced, the principal variations being in finished weights. The simplified list contains 20 styles of vinyl coated fabrics and 25 styles of pyroxylin coated fabrics. For each of these styles the recommendation gives the width in inches and linear yards per pound of the original gray fabric and the minimum width and weight per linear yards of coated fabric. The recommendation also contains a very useful table which enables technicians and others to compare the fabrics on the basis of weight per square yard.

It is the belief of the sponsors of the recommendation that the simplified lists will adequately cover normal requirements for these products. Some of the advantages expected to follow its general adoption are: concentration of demand by users, with resulting increase in efficiency and decrease in costs of production, handling and inventory; greater knowledge on the part of customers as to the precise characteristics of each of the styles and their suitability for specific end-uses; more intelligent specifications by purchasers as a result of increasing knowledge of the product and its uses; more intelligent application of the products by purchasers, and elimination of the product for end-uses for which the product is not adaptable, with resulting over-all improvement of the general reputation of the products of the industry.

Printed copies of "Simplified Practice Recommendation 242-51, Vinyl and Pyroxylin Coated Cotton Fabrics" may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for five cents per copy. A discount of 25 per cent will be allowed on orders of 100 or more copies.

Article Cites Uses Of New Detergent

The current issue of *Dyestuffs,* published by the National Aniline Division of Allied Chemical & Dye Corp., carries an interesting article describing the many textile applications which have been developed for the synthetic detergent, Nacconol NR. It was written especially for *Dyestuffs* by Dr. O. M. Morgan of the National Aniline Division who has been in charge of detergent application research for 17 years and is a well-known authority on synthetic detergents and their applications.

The appearance of this article is most timely in view of the many demands which are already being placed upon the textile industry as a result of the tremendous step-up in defense production, and the shortages in basic materials which will follow as a natural consequence. Described are new methods which can lead to marked increased production with savings in processing chemicals, fuel and water, the three important items in wet processing of textiles. These economies can be had without any new equipment or basic changes in present processing methods. Novel short-cuts are also described where suitable equipment is available or can be purchased, such as an all-acid process for fulling, scouring and dyeing of wool. All types of goods are covered including wool, other animal fibers, cotton, synthetic fabrics, silk and mixed goods.

Copies of *Dyestuffs* may be obtained by writing to National Aniline Division at 40 Rector Street, New York 6, N. Y., or any of its branch offices.

Fabric Designer Addresses Decorators

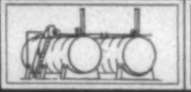
"How the Fabric Designer Looks at Color" was the subject recently of Boris Kroll, New York designer and manufacturer of fabrics, before the convention of American interior decorators at Grand Rapids, Mich. Mr. Kroll's address was made in conjunction with a demonstration in which he illustrated his points by use of certain fabrics as visual aids. He highlighted his address with several unusual color believe-it-or-nots: "Do you know the effort our leading dyestuff manufacturers put into developing proper dyes? I know of a firm that develops approximately 5,000 dyestuffs in a given year, and because of its own standards, market only about 12 of these dyestuffs. Do you know that intensive research is going on to develop better sun-fast dyes? At the moment there are no dyes that do not react, to some extent, to the direct sunlight. Deep shades stand up better to the sun than light pastel shades. Do you know that many people are under the impression that vat dyes stand up better under sunlight than direct dyes? Actually, vat dyes and direct dyes have about the same average when compared for sun-fastness only. Vat dyes are superior when considered for wash fastness. Do you know that there have been dyes developed which will actually dye a pure white?"

96 Years Experience in TANK DESIGN

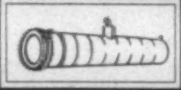
★ Cole has specialized in design, fabrication, and erection of elevated tanks for four generations. This long experience enables us to handle your assignment with dispatch, and to your complete satisfaction . . . We design, fabricate, and erect, in capacities from 5,000 to 2,000,000 gallons, with hemispherical, ellipsoidal, or conical bottoms.

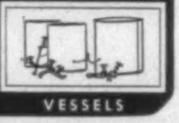
Write for prices, stating capacity, height to bottom, and location.

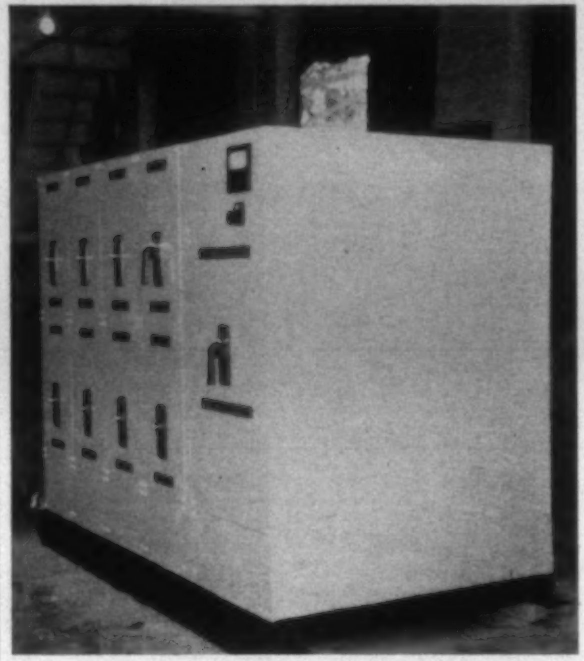
R. D. COLE MFG. CO.
NEWNAN, GA. Established 1854


TANKS

TOWERS


CYLINDERS

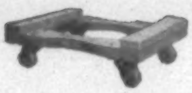

VESSELS



New switchboard built by Southern Electric Service Co. for installation at Bladenboro (N. C.) Cotton Mills.

Southern Electric Service Co.
Charlotte • Greensboro • Spartanburg • Greenville

Floor Trucks, Wheels And Casters By Nutting


Dolly & Flat Trucks Low Platforms

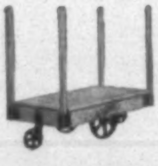
Two Wheel Trucks

Box and Four Sided Trucks

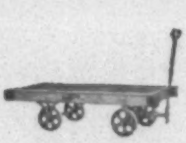
Three Sided Superstructure

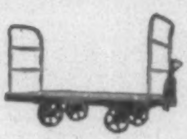
Shelf Trucks

Non-Tilting Platform Trucks


Balance Type Stake Trucks

Balance Type Rack Trucks


Wagon Type Trucks


Trailer Trucks

Truck Casters and Parts

Rubber Tired and Metal Wheels

MORE THAN 1000 STANDARD AND SPECIAL TRUCK DESIGNS
for Every Purpose

DESIGN AND APPLICATION ENGINEERING
Without Cost or Obligation

S. R. BROOKSHIRE
V. G. BROOKSHIRE

ENGINEERING SALES CO.

BUILDERS BUILDING
CHARLOTTE, N. C.

Maintenance, Engineering & Handling

Textile Electrical Meeting

By JAMES T. MEADOR

THE two-day textile electrical meeting at Georgia Institute of Technology April 26 and 27, sponsored by the textile subcommittee of the American Institute of Electrical Engineers, by virtue of the fact that it was entirely concerned with the electrical problems in the textile industry, attracted much interest and participation by the operators and others who daily have such situations to wrestle with. The attendance at each of these meetings was indicative of the practical interest in them. We hope that you will find that your being present at those meetings was profitable for both you and your company.

The group of both speakers and attendants consisted of plant engineers, master mechanics, operators and maintenance personnel, mill superintendents, and representatives of the electrical industry. Dan McConnell gave his version of that famed Irish occasion, the "Donnie Brook Fair," to bring out active and interested participation in some informal discussions from the floor, as well as comment and criticism of the subjects on the program or on any private or pet subject that the mill men had.

As a pattern or method of procedure in arranging these programs, the committee had worked with all phases of the industry to bring out facts of widespread value and use. They brought in one session of theories and ideas, another session of practical experience, and another of combined subjects. There was sought a policy or preference among mill men regarding their requirements of an enclosure for magnetic starters, disconnect switches, etc., as well as electrical equipment in general, in regard to making them more lint-proof. Such opinions will become an industry standard which will be passed back up through the A.I.E.E. to the electrical manufacturers, where it will be put into application, and thus improve *your* efforts in good mill operation and maintenance.

In addition to many outstanding speakers who were on a similar program earlier that week at Philadelphia who gave repeat performances at Atlanta, several mill engineers and master mechanics contributed to the program at Georgia Tech.

The first session Thursday featured discussions of "The Eddy Current Clutch" by K. H. Boehmer of Louis Allis Co. and "The Card Drive Story" by R. E. Parker and L. T. Jester of General Electric Co. Heard that afternoon were papers devoted to "The Principles of Static Electricity" by L. W. Walkup of Batelle Memorial Institute, "Static in the Woolen Industry" by L. A. Runton, director of machinery research for the M. T. Stevens Division of J. P. Stevens & Co., and "Synthetic Textiles and Static Problems" by Dr. Mason Hayek of E. I. du Pont de Nemours & Co. The final session Friday morning gave full coverage to textile mill power systems, with R. B. Wickam of West Point Mfg. Co. discussing design, J. C. Cummings of Bryant Electric Co. discussing installation, and Dude Ray of Avondale Mills discussing problems in operation and maintenance.

The discussion by Dr. Hayek covered the difficulties that manufacturers encounter in the full scope of mill processing fabric handling and consumer's wear and use throughout the life of the fabric due to static electricity. He outlined the numerous chemical specialties on the market designed for the purpose of combatting the accumulation of the static charges, and gave the effects of static in fiber spinning, such as nylon, as an example, where bobbins and other packaging elements must be treated with a suitable finish for control. He pointed out that during the processes of knitting, weaving and finishing, the continued control of static was of equal importance. His talk covered the cause and treatment of these troubles in a thorough manner, and was interestingly given.

Mr. Runton, in his discussion on "The Influence of Static Phenomena on the Textile Processing of Wool," gave also a thorough coverage of the cause and treatment of static in his industry, upon which we hope to give you a report, also, in a later issue of TEXTILE BULLETIN.

Then, there was another subject brought up for a full workout—a subject that has been sweeping through the textile industry like wildfire lately, and that is electric card drives—which was presented by Messrs. Parker and Jester in a comprehensive, interesting manner. J. C. Cummings gave a picturesque talk on installations of a mill power system. Dude Ray's presentation left everyone in a happy state of mind in the closing session of the meeting.

Swaffield Cowan of Factory Insurance Association, whose 1950 paper you read last month in TEXTILE BULLETIN, presented "Fundamentals of Good Electrical Installation Practices" at both Atlanta and Philadelphia meetings this year.

Preventive Maintenance Program Outlined

Fourteen ways to lower operating costs of electric industrial trucks were outlined recently by Charles Greener, general service manager of Automatic Transport Co., Chicago, manufacturer of such equipment. Planned preventive maintenance assures reduced service budgets, longer life, and less "down" time while trucks undergo repairs, Mr. Greener said. His program for one-truck or fleet operations, based on studies of successful techniques, includes these recommendations:

(1) Loads should suit the truck. Teach operators that truck capacity varies with load length, and that continual

overloading causes serious breakdowns and plays havoc with tire bills. Use trucks with ample reserve capacity.

(2) Keep floors clean and in good condition. Bad surfaces cause damaging strains and shocks, and tires suffer unnecessarily.

(3) Replace tires when they develop flat spots or when big chunks or rubber are gouged out. Stretching tire use damages the truck, costs far more in repairs than you think you are saving, and is bad for driver health and efficiency.

(4) Let the right man—the mechanic—do repair work. When something goes wrong, have your operator call the mechanic, and don't let him have the truck pushed or towed without the mechanic's orders.

(5) Operators should be trained thoroughly in proper use of equipment assigned to them. Whenever possible each man should work permanently with the same truck.

(6) When you get a new truck, be sure to obtain full information about it. Have the manufacturer's service representative demonstrate it for your operators. He should advise your maintenance force, explain spare parts needs, and make sure no damage was incurred in shipment.

(7) Your mechanical maintenance program, whether large or small, should follow a regular schedule. Use a series of mechanical worksheets or tags prescribing services to be performed. Keep a fleet maintenance record to learn the life expectancy of important units of the truck. This enables you to make necessary changes in advance to avoid complete breakdown, preventing loss of operating time.

(8) Trucks need a monthly lubrication and mechanical check, usually requiring about an hour and a half, which should follow removal of dirt and grit from the undercarriage. Fleet operation calls for a cleaning rack in a small or enclosed area. A weak alkaline solution applied under steam pressure does a good cleaning job, and compressed air is best for drying. After the mechanical check, lubricate the truck. Make a large blow-up of the manufacturer's lubrication chart so maintenance men can follow it easily. During the check, put the truck through its paces thoroughly in all speeds, and with a normal load.

(9) Semi-annual mechanical checks and lubrication are more extensive. Included are cleaning and repacking wheel bearings, changing drive axle grease or oil and any other services not assigned to the short-term checkups.

(10) Electrical checks should be conducted on a weekly, monthly and semi-annual basis. The weekly check includes tightening loose fittings and replacting worn or damaged ones. Monthly, all electrical operations should be observed closely, and semi-annually, the complete electrical inspection will save you money. Tightness of electrical connections and proper insulation of wires should be noted carefully.

(11) Be careful with your batteries. Overwatering will weaken the electrolyte, and when it spills over from the battery case, the electrolyte causes corrosion of other truck parts. Flushing the battery is a necessity, as the battery must be kept clean. Make this part of the weekly inspection. Use properly maintained automatic charging equipment.

(12) General overhauls should be scheduled according to operating conditions, such as the number of hours the trucks works daily, plant conditions, and the driver's ability.

(13) Keep a weekly log for each truck, on which you record inspections, lubrications and cleanings. This permanent record will help you make sure necessary preventive maintenance functions are performed.

(14) The program outlined above is based on one shift a day, and favorable operating conditions. Under rough conditions, such as bad floors, more than average dirt, or more than one shift a day duty, trucks require more frequent use of some or all of these checks. It is wise to consult with the manufacturer's service representative in regard to this.

Cite Need Of Trained Textile Engineers

The problems and potential of the Southern textile industry, as viewed by the mechanical engineer, were outlined early last month in Atlanta, Ga., at the textile sessions of the Spring meeting of the American Society of Mechanical Engineers.

Included in the list of distinguished speakers heard at the meeting were Leslie A. Runton, manager of the engineering department of M. T. Stevens & Sons Co., North Andover, Mass.; W. F. Leineweber, Jr., chief engineer of Textile Equipment Corp., Greenville, S. C.; M. Earl Heard, vice-president in charge of research for West Point (Ga.) Mfg. Co.; E. C. Gwaltney, Jr., of Robert & Co. Associates, Atlanta; Dr. Earl E. Berkley, director of research for Anderson, Clayton Co., Houston, Tex.; R. S. Curley of Saco-Lowell Shops, Biddleford, Me.; Peter M. Strang of Whitin Machine Works, Whitinsville, Mass., and Frank F. Groseclose, director of the school of industrial engineering at Georgia Tech.

If the textile industry is to continue to grow and progress, Mr. Runton declared, it is urgent that more trained engineers move into the industry. Textile management needs more reliable information in regard to accomplishments being obtained in newly developed areas, he said, using new methods in management, selected plant environment, machinery layouts and materials handling methods.

A new way to blend fibers that promises more uniform mix, work savings and elimination of some mechanical equipment was described by Mr. Leineweber. The new technique weighs and blends ounces of fiber at a time but is capable of equaling or exceeding the tons of daily production presently accomplished by standard methods, he explained. The system employs an automatic weighing device that drops small lots onto a conveyor where is assumes sandwich form and is then deposited into a blending apparatus. The system is currently employed in a mill, he said, and has proved capable of labor savings of $32,000 a year. It has also consolidated picking into the one-process, two-beater type and has eliminated use of bins.

Tracing the history of the textile industry from its beginning, Mr. Heard told the group that the coming of the machine age had greatly stepped up the need for engineers in this "oldest and most fascinating" industry. "It is the engineers who developed the machines and the business men who developed our trade, that have been responsible for making America great," he declared. Today the textile industry is changing faster than ever before, and the constant stream of new devices make engineers more necessary than ever before. Management of machinery

Paddock's

VULCANIZED FIBRE TEXTILE TRUCKS

ARE TOUGHER, EASIER TO HANDLE

Made of finest vulcanized fibre available—3/32″ or ⅛″ thickness. Sturdy, all-steel welded frame. Available in three styles.

J. C. Paddock Company has *specialized* in the manufacture of *textile* trucks for 12 years and *knows* the industry's requirements.

In addition to our Vulcanized Fibre Trucks, we also manufacture Aluminum, Stainless Steel, and Galvanized Metal Trucks, Quill Cans, Filling Boxes and other materials handling equipment.

We Invite Your Inquiries

J. C. PADDOCK COMPANY

SPARTANBURG SOUTH CAROLINA

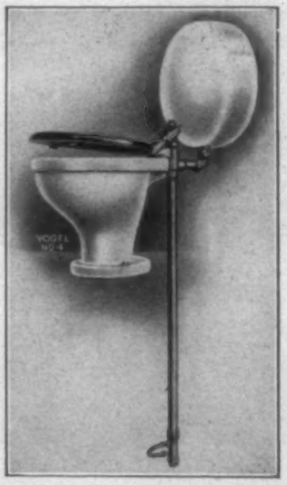
VOGEL OFFERS

AN OUTFIT TO MEET YOUR REQUIREMENTS—

Vogel Closets and Hydrants are the original Closets and Hydrants of their type, and over a million have been sold through recognized wholesalers of plumbing supplies.

VOGEL No. 4 FROST-PROOF CLOSET

The No. 4 Frost-Proof is ideally suited to Mills and Mill Villages and when properly installed will operate efficiently even in the coldest weather. Its rugged construction and few moving parts assure long dependable service. A great convenience when installed in the yard or on a rear porch of a residence.



VOGEL No. 10 SEAT-ACTION CLOSETS

For Factories, Schools, Institutions, Farms and Comfort Stations. These durable syphon-action closets are simple in construction with few moving parts and no mechanism in the tank to get out of order. They represent the ultimate in economy . . . both in water consumption and upkeep.

VOGEL No. 14 SOUTHERN OUTFIT

(Not Frost-Proof)

The No. 14 is designed for Mills, Factories and Industrial Plants which do not require complete frost-proof protection. The No. 14 has a vitreous china bowl and is made of the same long-wearing materials for which all Vogel Products are noted.

(For installation where trap is set in floor)

JOSEPH A. VOGEL CO., WILMINGTON 99, DELAWARE

VOGEL PRODUCTS

is important and there is a need for textile engineers trained in fact-finding and making decisions based on fact.

The textile industry is on the move, Mr. Heard told the group, and there exists today a marvelous opportunity for the engineer to move in and help accelerate this progress. There is a need for a minimum of 50,000 engineer students annually, but today, only about 30,000 are enrolled in engineering schools and the mortality is about 50 per cent. "An engineer who is interested in the textile industry will have something to look forward to," he declared.

Mr. Gwaltney told the A.S.M.E. textile division that the modern textile finishing plant must be a carefully engineered compact group of buildings, machinery and processes with detailed study given to all features of maintenance and operation to the end that a minimum of personnel will be required to handle a maximum of production. In his talk, Mr. Gwaltney further developed the theme of the A.S.M.E. meeting, "Increased Production at Lower Unit Cost."

Dr. Berkley also highlighted this theme. He emphasized that with labor costs as they are today, textile mills must exert more care in the future in the selection of cotton and other raw materials if they are to keep the work load in the mill minimized. "It is questionable if any mill can long compete on a closed market without some index of fiber quality beyond that given by grade and staple," he said.

Because a need has arisen for the removal of seed coatings from cotton fiber, a new machine to be know as a trash ejector has been developed, it was revealed by Mr. Curley of Saco-Lowell Shops. The new trash ejector comprises four special beaters arranged one above the other, making a four-high vertical machine. Laps made from cotton passing through this machine show considerable improvement over those made without the trash ejector, Mr. Curley claimed. The amount of dust removed improves the color of the finished lap, and fewer seed coatings, light particles and motes are present. Speed of the beaters, he stated, is between 320 and 400 r.p.m.

The theory of carding includes the effect of air and fluid dynamics on the fibers and the parts of the carding machine, Mr. Strang of Whitin Machine Works, explained. In his paper, Mr. Strang concerned himself with some principles of fluid dynamics with reference to their application to carding with a top flat card. "Additional study may show that neps are caused by small turbulent eddies which develop in the air stream as it flows past projections, terminating boundaries and the like." he said. Experiments, he explained, lend credence to the thought that the dominating factor in the design and operation of carding equipment is the control and manipulation of the boundary layers of air which sheath the rotating cylinders. The originators of carding machines, he said, appear to have developed empirically a principle the scientific explanation of which has but recently become available.

"In the manufacture of goods the South is producing only one-fifth of the national total, but there are certain types of manufacturing which excel here," Mr. Groseclose declared. "These types naturally are related closely to our raw products—which is certainly good business. In spite of the enormous lead in textile manufacturing formerly held by the North, the South is now doing nearly 60 per cent of all textile manufacturing.

"Chemical manufacturing has passed the 33 1/3 per cent mark, and for petroleum-coal products, manufacture in the South has passed the 40 per cent mark. These 16 Southern states are also doing a little more than their share of the lumber manufacture, and a reasonable share of nearly everything."

In the field of distribution, he said, the income from all utilities was about one-third of the national total during the past decade, and the income from rail, highway, air and water transportation was more than one-third of the national total. The South stands alone as the source of many raw materials, he declared. He quoted Col. Blake R. Van Leer, president of Georgia Tech, to the effect that one of the greatest opportunities for young people in the South is in the enormous potential business of supplying services of all kinds. He added that the 1949 figures show that the number of persons engaged in service and professional trades in the South was more than one-third of the national total.

Cite Value Of Materials Handling Equipment

A minimum increase of ten per cent in America's industrial capacity can be achieved through wider and more thorough use of modern materials handling equipment, it was stated recently at the opening of the National Materials Handling Exposition at International Amphitheatre, Chicago, Ill.

In a specially prepared statement, Elmer F. Twyman, vice-president-in-charge of Yale & Towne Mfg. Co.'s Philadelphia Division, said further, "At this very moment, booming defense orders threaten to tax our industrial capacity, already operating under a full head of steam from present military needs coupled with a continuing high level of civil purchasing. Unless we can quickly accelerate productivity we are faced with trimming the latter substantially and thus lowering our standard of living. Not only can modern materials handling accomplish such a task, but it can do it cheaper and more expeditiously than the building of new plant facilities."

Mr. Twyman pointed out that in many plants, handling of materials frequently requires more time than it takes to actually process them. "Materials handling is the soft underbelly of production," he said, "beside wasting time and energy of skilled labor, poor handling practices also waste critically short storage space and slow-up distribution. Mechanized handling methods can tier large loads many feet high utilizing valuable 'air rights,' and can speed loading and unloading of freight cars and trucks."

Mr. Twyman cited one large steel company that increased freight car payloads of tinplate 26 per cent through modern handling methods that permitted better utilization of space. He also told how the U. S. Post Office was speeding car loadings of parcel post. "We have been working with the Post Office for over a year now," he said, "and their operational tests have proved conclusively that mechanized handling can cut car loading and unloading times as much as 62 per cent. These examples indicate," he added, "at least two ways to alleviate the current freight car shortages by decreasing turn-around times and increasing loads. While materials handling even at its best is not a cure-all for our industrial ills or military supply problems, it is admirably suited for immediate first-aid, as well as long-term therapy."

magno·tronic

DUAL SILVER POINT — FULLY AUTOMATIC

FLUORESCENT STARTERS

–completely eliminate annoying blinking and flickering of dead fluorescent lamps!

GUARANTEED — FOR ONE YEAR!

This is a glow switch condenserless precision starter equipped with automatic thermal relay circuit breaker. The relay automatically removes the lamp from the circuit electrically when the lamp becomes deactivated and automatically resets upon interruption of the lamp circuit.

SIMPLIFIES — Replacement of defective lamp automatically recycles starter circuit. No buttons to push — no replacement of starter.

REDUCES COST — Magno-Tronic starters provide exact timing of electrode heating, preventing excessive loss of emission material, thus assuring maximum lamp life.

VERSATILE — Built to operate efficiently over an extended voltage and temperature range with absolute dependability.

SP-15-20 For use with 15 or 20 watt lamps.

SP-30-40 For use with 30 or 40 watt lamps.

SP-85-100 For use with 100 watt lamps.

Manufactured under
U. S. PATENTS
2298236
2159837
2339307
2334935
2239244
2333694
2341520
1849552
Other Patents Pending

INDUSTRIAL ELECTRONICS CORP.
80 BANK STREET, NEWARK 2, N. J.

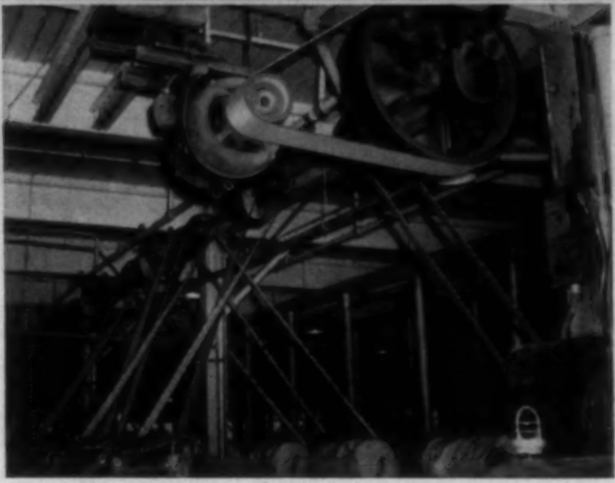
BRYANT
Wholesale
ELECTRICAL ★ INDUSTRIAL

Electrical Apparatus
Industrial Supplies

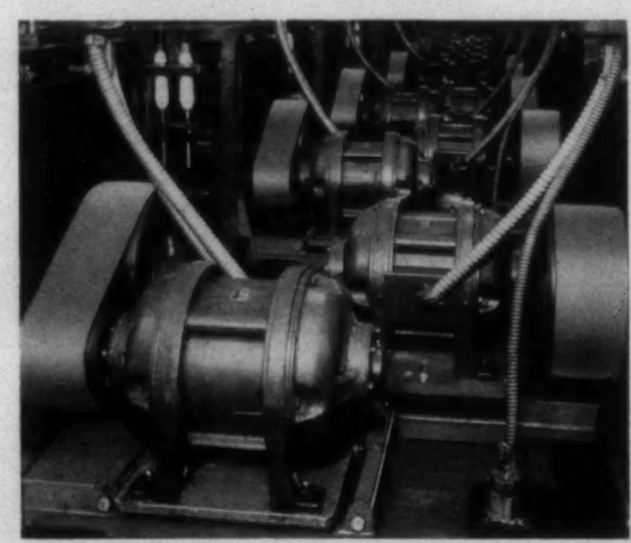
Member
National Association of Electrical Distributors

BRYANT SUPPLY CO., Inc.
605 E. Franklin Ave. Phone 5-3466
GASTONIA, NORTH CAROLINA

RHOADS *Tannate* LEATHER BELTING



. . . transmits more power and steps-up production



Tannate Belts are made of a special tanned leather, having a combination of desirable qualities. The fine, glove-like surface grips the pulley with less bearing pressure. More power transmitted means greater production and more uniform yardage. Higher quality and lower maintenance often follow. Tannate has unusual flexibility and great strength and is highly resistant to humidity, high temperatures and machine oils.

If you have a belting problem, call on Rhoads for engineering advice.

PRODUCERS OF FINE LEATHER FOR 249 YEARS
J. E. RHOADS & SONS
35 NORTH SIXTH ST., PHILA. 6, PA. and ATLANTA

CHAIN DRIVES

ENGINEERED PG TESTED

First by PRECISION (for Textiles)

Largest Stock!

It's all happened in less than 25 years! Remember the "old" PRECISION Compound? The first Chain Drives? —for Drawing, Roving, Sliver and Ribbon Lap, for spinning and twisting, etc., etc.? And do you remember that PRECISION ORIGINATED The First —and practically EVERY CHAIN DRIVE used in the Textile Industry? Thus, when you order from PRECISION, you get CHAIN DRIVES by Experts—from the ORIGINATORS! Call PRECISION—the Pioneer and Producer of Textile's most complete line of Chain Drives—most of them in stock. Or, ask for a Sales-Engineer!

Originated by PRECISION

• Picker • Draw Frame • Roving frame • Sliver Lap • Cylinder Jack • Ribbon Lap • Comber • Twister • Slasher

Chain Drives Give You

—longer life • highest efficiency • full output • more uniform product • uninterrupted service • shock load capacity, true economy—first and last.

Engineers : Manufacturers — Cams : Bearings : Gears : Chain Drives

DIVISION OF TURNER MANUFACTURING CO.

PG Ph. 4-6857

PRECISION
GEAR AND MACHINE CO.
2001 North Tryon St., Charlotte, N.C.

THE SOUTH'S LARGEST MANUFACTURER OF GEARS AND CHAIN DRIVES

LAMBETH PRODUCTS
FOR SPINNING, TWISTING, SPOOLING, WEAVING

Basket weave spinning tape

weave spinning tape

Herringbone

LAMBETH RUBBER LUG STRAP

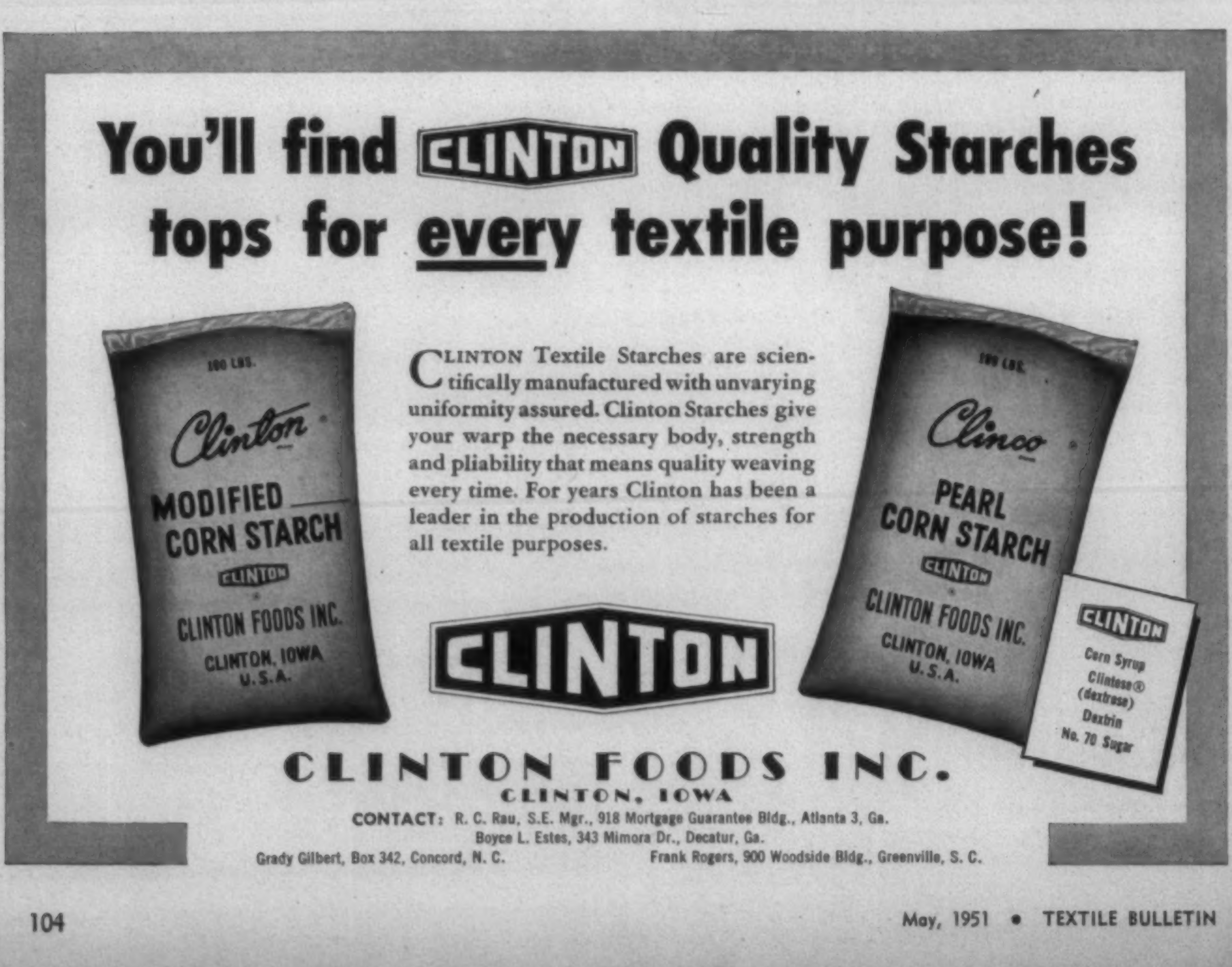
Basket weave twister & spooler tape

Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)

Mule ropes all sizes diameters

Braided spindle banding for mules, etc.

LAMBETH ROPE CORPORATION
Plants at New Bedford, Mass. and Kings Mountain, N. C.



You'll find CLINTON Quality Starches tops for every textile purpose!

CLINTON Textile Starches are scientifically manufactured with unvarying uniformity assured. Clinton Starches give your warp the necessary body, strength and pliability that means quality weaving every time. For years Clinton has been a leader in the production of starches for all textile purposes.

100 LBS. Clinton MODIFIED CORN STARCH CLINTON CLINTON FOODS INC. CLINTON, IOWA U.S.A.

100 LBS. Clinco PEARL CORN STARCH CLINTON CLINTON FOODS INC. CLINTON, IOWA U.S.A.

CLINTON Corn Syrup Clintose® (dextrose) Dextrin No. 70 Sugar

CLINTON

CLINTON FOODS INC.
CLINTON, IOWA

CONTACT: R. C. Rau, S.E. Mgr., 918 Mortgage Guarantee Bldg., Atlanta 3, Ga.
Boyce L. Estes, 343 Mimora Dr., Decatur, Ga.
Grady Gilbert, Box 342, Concord, N. C.
Frank Rogers, 900 Woodside Bldg., Greenville, S. C.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

John Wyatt of Greensboro, N. C., has been appointed Southern representative of Watson-Williams Mfg. Co., of Millbury, Mass., manufacturer of shuttles, wire heddles and hand stripper cards, and will cover the states of North Carolina, Virginia, West Virginia and Maryland, with his office in the Jefferson Building, Greensboro, N. C. He will also represent Watson and Desmond, textile supplies firm, manufacturers' agents and dealers in used textile machinery, of Charlotte, N. C. In addition to representing Watson-Williams, the firm of Watson & Desmond represents Machinecraft, Inc., Nylon Bearings, Inc., Vermont Spool & Bobbin Co. as well as other suppliers. Mr. Wyatt, since 1946, has been with Burlington Mills as assistant to the director of purchases and engineering, and as an assistant purchasing agent, specializing in weaving and knitting machinery supplies and parts.

O. C. Helms of Belmont, N. C., is now overseer of spinning at Johnston Mfg. Co., Charlotte, N. C.

C. O. Morgan, formerly of Mount Holly, N. C., has been appointed superintendent of Yarn Specialties, Inc., Clover, S. C.

A. T. Tuttle, formerly with the Wm. Klopman & Sons, Inc., rayon plant at Asheboro, N. C., has been appointed manager of the firm's rayon weaving mill at Covington, Va.

Martin J. Lydon will be formally inaugurated as president of Lowell (Mass.) Textile Institute June 2 at the college's Alumni Day ceremonies. Mr. Lydon was appointed head of the institute June 15, 1950, succeeding Kenneth R. Fox, who resigned to accept an executive post with Burlington Mills Corp., Greensboro, N. C.

According to reports in the industry, S. C. Veney, who resigned recently as Southern divisional manager for Duplan Corp., will join Stonecutter Mills Corp. at Spindale, N. C., June 1 as plant manager.

H. M. Johnson has been promoted from loom fixer to overseer of weaving at Flint River Mills, Albany, Ga.

Thomas Nelson, dean emeritus of the School of Textiles at North Carolina State College, Raleigh, recently observed his 79th birthday. Mr. Nelson suffered a stroke on his left side a little over a year ago but now reports he is feeling quite well and able to get around.

John H. Jones has resigned as an assistant in the industrial relations department of Standard-Coosa-Thatcher Co., Chattanooga, Tenn., to become associated with Burlington Mills Corp., Greensboro, N. C., in the personnel department. Mr. Jones was editor of *The Spindle,* company publication for employees at S-C-T. . . . Robert Pursley has been transferred from the mercerizing department to the industrial relations department as assistant director and in this capacity will succeed Mr. Jones as editor of *The Spindle*. Mr. Pursley has been with the company since 1939 and has been overseer of the mercerizing department since April, 1944.

Joseph H. Bates, who took a temporary leave of absence in October, 1950, as president of Bates Chemical Co. to become director of the chemical division of the National Production Authority, has resigned from the N.P.A. post due to the pressure of personal affairs. . . . Kenneth H. Klipstein, who has been deputy director, has been named to succeed Mr. Bates. Mr. Klipstein is on leave from his position as assistant general manager and head of the technical department of the Calco Chemical Division of American Cyanamid Co.

Lewis F. Shackleford, formerly associated with Pacolet Mfg. Co. at Gainesville, Ga., as industrial engineer, has accepted a similar post with Monroe (Ga.) Cotton Mills. Mr. Shackleford is a 1948 graduate of Georgia Tech and holds a B.S. degree in textile engineering.

William Woodward, Jr., has succeeded George M. Miller as president of Turner Halsey Co., Inc. Mr. Miller becomes chairman of the board. Charles D. W. Halsey, former board chairman, was named honorary chairman. Also elected were Edward

FOR MAKING "AN OUTSTANDING CONTRIBUTION" in development of the automatic packaging device used in the automatic bale sampler developed by the United States Department of Agriculture, John E. Larrison *(center)*, in charge of equipment development at the Stoneville (Miss.) Cotton Laboratory, receives a Superior Accomplishment Award from William J. Martin *(right)*, assistant chief of the U.S.D.A. cotton branch research and testing division, in the presence of Francis L. Gerdes, head of the Stoneville facility.

DARY
Ring Travelers

ONE TRAVELER IS WORTH 1,000 WORDS!

A switch on the old Chinese proverb—but in the case of Dary Ring Travelers, absolutely true!

The performance of one *Dary Ring Traveler*, under any and all spinning conditions, will tell you more than 1,000 of the finest adjectives we could select!

That's your cue to call in your nearest friendly Dary representative!

PROCESSED
SYMBOL OF SUPERIORITY

THE DARY RING TRAVELER CO.
TAUNTON, MASSACHUSETTS
JOHN E. HUMPHRIES, BOX 843, GREENVILLE, S. C.
JOHN H. O'NEILL, BOX 720, ATLANTA, GA.
JAMES H. CARVER, BOX 22, RUTHERFORDTON, N. C.
CRAWFORD RHYMER, BOX 2261, GREENVILLE, S. C.

A. Dawson and John H. Riley, vice-presidents; Paul C. Carpenter, vice-president and secretary; William G. Lipsey, treasurer; and Mervin Stratton, assistant treasurer.

E. P. Henley has been added to the sales staff of the textile chemical division of Dexter Chemical Corp. and will cover eastern North Carolina and Virginia from headquarters in Greensboro, N. C. Prior to joining Dexter, Mr. Henley had been selling heavy chemicals for Mathieson Alkali and previous to that association worked with Burlington Mills Corp. on dyeing and finishing operations. He is a graduate chemist and dyer, North Carolina State College, Raleigh.

Morse G. Dial has been elected executive vice-president of Union Carbide & Carbon Corp. Mr. Dial joined the firm in 1929 as a member of the sales staff. In 1937 he became assistant secretary and treasurer and in 1945 he was elected secretary and treasurer. Since 1949 he has been director, vice-president, and treasurer.

W. T. Stockton has been appointed comptroller of J. P. Stevens & Co., Inc., New York, succeeding C. E. Baster, who requested his release to accept a new appointment with the Carter Fabrics Division of the company in Greensboro, N. C. Mr. Stockton has been associated with the company and its predecessors in the South since 1937.

Charles L. Yeomans, for many years with the Draper Corp. in servicing of looms, has entered business for himself in Spartanburg, S. C., and is offering textile plants a varied service in loom rebuilding, widening and general overhauling. Accessories and used textile machinery also are handled. Mr. Yeomans has acquired warehouse facilities to accomplish such work if not done in the individual plant. His address in Spartanburg is P. O. Box 1661.

Dr. Charles A. Thomas, one of the nation's leading atomic scientists, has been elected president of Monsanto Chemical Co., St. Louis, Mo., succeeding William M. Rand, who retired May 1 under the company pension plan. Mr. Rand, who joined Monsanto in 1921, continues on Monsanto's board. Dr. Thomas has been Monsanto's executive vice-president since 1947.

Walden E. Bassett has been named manager of the customers' service department for the filament yarn, staple fiber and woven fabrics divisions of Celanese Corp. of America. He will maintain close liaison with filament yarn and staple fiber operations at the company plants, assist all textile customers in processing of yarns and fibers, and render general service on customer problems. . . . Charles E. Babst has been named manager of the firm's production planning department for the filament yarn and staple fiber divisions. His general duties will be to plan and co-ordinate production of all yarns and fibers at the various plants.

Richard I. Devine has been appointed sales manager of North American Rayon Corp. He has been associated with the firm for 19 years in various technical and sales capacities.

Herman K. Moeller has been appointed manager of the fabric development section, rayon division, of the Du Pont Co.'s rayon department. His headquarters are in New York City. Mr. Moeller joined Du Pont in 1940 as a technician in fabric sales development in the New York office. Since 1943, he has been a technical specialist there. Mr. Moeller succeeded E. A. McAbee who had been manager of fabric development since 1945. Mr. McAbee resigned from the company to engage in an enterprise of his own. He had been with Du Pont since 1939 when he joined the nylon division as a technical assistant in the sales development section.

I. T. Meyer has been appointed vice-president in charge of manufacturing of Industrial Rayon Corp. and will make his headquarters at the company's executive offices in Cleveland, Ohio. Mr. Meyer, who has been manager of the company's Covington, Va., plant since 1949, joined Industrial Rayon as a production supervisor in 1928. Before joining Industrial Rayon he was for five years associated with National Aniline & Dye Co. at Buffalo, N. Y. . . . W. D. Croswhite, Sr., production superintendent of the firm's Painesville, Ohio, plant since 1938, has been appointed manager at Covington to succeed Mr. Meyer. A native Virginian, Mr. Croswhite has been connected with Industrial Rayon Corp. since 1929.

Paul P. Johnson, who joined Universal Winding Co. Jan. 22, 1951, as assistant to the president, has been placed in charge of all manufacturing for the firm. Mr. Johnson replaces C. Foster Harry, who recently resigned as vice-president in charge of manufacturing because of ill health. Mr. Johnson's previous associations include Thompson Products Co., Waltham Watch Co. and Saco-Lowell Shops.

Ellison A. Smyth, who recently resigned as vice-president, Southern sales manager and director of H & B American Machine Co., has joined the Richmond, Va., regional office of the Office of Price Stabilization as a specialist in cotton textiles.

Samuel H. Swint, president of the Graniteville Co. at Augusta, Ga., and John L. Hutcheson, Jr., president of Peerless Woolen Mills at Rossville, Ga., recently were awarded honorary membership in the Georgia Tech Chapter of Phi Psi, national honorary textile engineering fraternity "because of their many contributions to the textile

DANDUX

QUALITY

Canvas

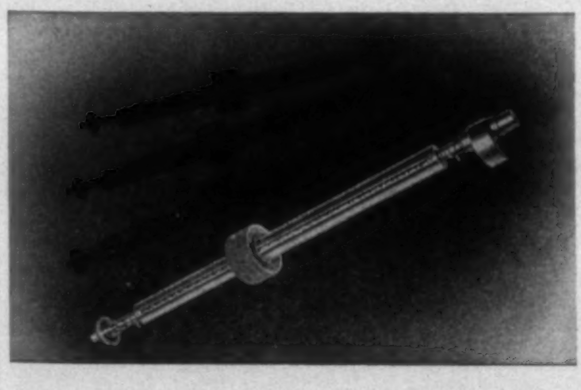
DOFF BASKETS

BASKETS

AISLE TRUCKS

C. R. DANIELS, INC.

121 E. Third St., Charlotte, 2, N. C.
9 S. Vandeventer Ave., St. Louis 8, Mo.



NEW ROY Internal Ball Bearing Cotton Traverse Grinder gives you smoothest grinding action ever known. The grinding wheel floats back and forth across the tube giving the wire a breezing touch action and accurate side grind.

This advantage—the result of long experimentation with various types of ball bearings—means added years of service when properly installed in a new as well as an old grinder.

B. S. ROY & SON COMPANY

Established 1868

Worcester, Mass. — Charlotte, N. C.

Sales Engineers in the South:

Charles E. Hendrick—L. P. Bell—B. L. Quick
Office and Plant, 1623 North Tryon Street, Route 29,
Charlotte, N. C.—Tel. 5-3845.

in card clothing, too..

sharp points
yield longer runs

Carders who use Wissco Hardened Point Clothing find that it gives them longer runs between grindings... actually cuts grinding time by as much as 50%.

That's because after this superior Wissco Clothing has been precision set, it is ground to an accuracy of ½ of a thousandth of an inch, then hardened by a special Wissco process . . . thus assuring points that stay smooth and sharp.

A trial run will show you why more and more mills are standardizing on Wissco Hardened Point Clothing. Write today for detailed information.

Sales Office and Plant: 56 Sterling St., Clinton, Mass.
Executive Office: 500 Fifth Avenue, New York 18, N. Y.
District Offices: Atlanta, Boston, Buffalo, Chicago, Detroit, Denver, New York, Philadelphia.
Pacific Coast: The California Wire Cloth Corporation, Oakland 6, Cal.

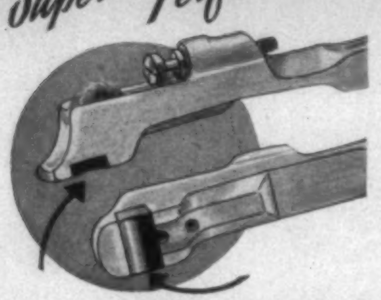
Wissco
CARD AND NAPPER CLOTHING

CF&I

FOR COTTON, RAYON, WOOL, WORSTED,
ASBESTOS AND SPECIALTIES

A Product of Wickwire Spencer Steel Division of The Colorado Fuel And Iron Corporation

DIXON
LUBRICATING SADDLES
+
DIXON
LUBRONZE BEARINGS
=
Superior Performance



The Dixon LUBRONZE Bearing is a new improvement in the Dixon Lubricating Saddle. It is a bronze insertion impregnated with graphite, oil and other materials, fixed in the saddle at the point where the latter bears on the front roll. Here, where friction causes the greatest wear, LUBRONZE Bearing provides a smooth surface and gives extra protection of reserve lubrication.

With its special reserve qualities, LUBRONZE will not eliminate the need for lubrication, but it takes over the oiling job when unavoidable delays occur. LUBRONZE IS AS GOOD AS AN EXTRA HAND IN THE SPINNING ROOM.

This bearing can be furnished in our famous CWA No. 4 Jump Saddle (see below), as well as all Dixon front saddles.

When ordering any new saddle for front roll weighting, LUBRONZE Bearings should be specified. All Dixon Saddles are products of long experience and quality workmanship, —the best you can buy.

"They cost so little and save so much."

Jump Saddle for Front and Back Rolls Only.

DIXON
LUBRICATING SADDLE CO
Established 1876
BRISTOL — RHODE ISLAND

Southern Sales Representatives:
R. E. L. HOLT, JR., & ASSOCIATES
P.O. Box 1474 Greensboro, N. C.
•
J. W. DAVIS, Mfg'rs Agent
P.O. Box 745 Columbus, Ga.

industry in the South." . . . David Clark, editor and publisher of TEXTILE BULLETIN, was similarly honored by the Charlotte (N. C.) Alumni Chapter of the textile fraternity.

D. C. Gunter, superintendent of Flint No. 1 of Burlington Mills Corp. at Gastonia, N. C., recently completed ten years' service with the company and was awarded a service pin and certificate by Vice-President D. A. Gryder.

R. P. Hardeman, assistant general manager of the Trion (Ga.) Division of Riegel Textile Corp., has been elected vice-president of the Trion Rotary Club. A. B. Hammond, vice-president and general manager of Berryton Mills, was elected treasurer of Trion Rotary. . . . R. C. Edwards, treasurer and general manager of the Abbeville, S. C., group of mills for Deering, Milliken & Co., recently was elected president of the Abbeville Lions Club. . . . P. S. Bailey, president and treasurer of Lydian Cotton Mills and Clinton (S. C.) Cotton Mills, was honored April 27 by the Clinton Lions Club as Clinton's "Citizen of the Year."

Ralph L. Carr has been appointed manager of the technical service department of Mathieson Chemical Corp. Mr. Carr is the author of numerous papers and booklets on ammonia, caustic soda and chlorine and was instrumental in developing the Mathieson open-width steamer used in textile manufacturing.

Robert J. Stack has succeeded J. R. Millar as president of National Automotive Fibres, Inc., Detroit, Mich. Mr. Millar continues as chairman of the board. Mr. Stack has been in National Automotive Fibres, Inc., since its organization in 1928 by Mr. Millar. The firm operates California Cotton Mills at Uniontown, Ala.

J. M. Moon, director of sales for Signode Steel Strapping Co., recently was elected vice-president of the company in addition to his duties as director of sales. . . . Robert Peterson was elected assistant treasurer of the company.

Lonnie Long, formerly with Bath (S. C.) Mills, a division of United Merchants & Manufacturers, has been appointed master mechanic of that firm's new mill now under construction at Clarkesville, Ga. A native of High Point, N. C., Mr. Long is a 1949 graduate of North Carolina State College with a B.S. degree in mechanical engineering.

Dr. E. I. Stearns has been named assistant to Dr. R. H. Kienle, director of the application research department, Calco Chemical Division, American Cyanamid Co. Dr. Stearns joined the company in 1933. In his new capacity he will conduct special research, technical evaluation and field service assignments.

Who's Who Among Textile Merchants

John M. Reeves

John Mercer Reeves, chief executive of Reeves Bros. at 54 Worth Street, New York City, and affiliated mills in the South, spent his first year in the textile industry literally working for nothing as a sample room hand and part-time customer contact man for the old Hunter Mfg. & Commission Co.; Mr. Reeves refers to his no-pay status by stating that "they prboably didn't think I was worth it."

The textile industry would not venture that opinion now, because he is regarded as one of its outstanding leaders, having built Reeves Bros. into a major textile organization operating seven mills and two finishing plants and employing nearly 7,000 workers.

Mr. Reeves was born some 63 years ago at Siloam, N. C.; his father was a tobacco planter and manufacturer. John Reeves received his preparatory education at Oak Ridge Institute in North Carolina, and graduated from the University of North Carolina at Chapel Hill in 1910. He subsequently spent a year at North Carolina State College, Raleigh, taking textile work and then took on-the-job training at Mooresville, (N. C.) Mills.

Following World War I, in which he served as a Navy ensign, he joined his brother, M. R. Reeves, in the firm known then as Reeves, Jennings & Co., which two years later became Reeves Bros., Inc., with M. R. Reeves as president and John M. as vice-president and secretary. Upon his brother's death in 1942 John M. Reeves became president and treasurer of the firm.

In 1928 he was married to Virginia McKenzie of Timmonsville, S. C., and they have three daughters, Virginia, Ann and Emily. They maintain a Summer home at Buck Hills Falls, Pa.

John Reeves keeps his office on the ground floor of 54 Worth, where he is always available to employees and customers. Even with his widespread business duties, he still finds time for civic and philanthropic work and is on the boards of several hospitals and schools, besides serving on many textile industry committees.

Willfred W. Lufkin, Jr., has been appointed a vice-president of Wellington Sears Co. Mr. Lufkin joined Wellington Sears several months ago and prior to that had been a director, vice-president and general sales manager of Dan River Mills, Danville, Va.

James E. Craig, who served two years as executive secretary in the office of South Carolina's ex-governor J. Strom Thurmond, has been named plant purchasing agent for the new fiberglas yarn plant now under construction at Anderson, S. C., for Owens-Corning Fiberglas Corp. . . . Other recent appointments for the Anderson plant include: Howard G. Humphries, a member of the firm since 1943, appointed plant personnel director; Alfred C. Cox, city recreation director of Anderson for the past year, appointed manager; Edward J. Donahue, with the organization since 1941, named production manager; Caesar A. Spers, Jr., connected with the firm for four years, named plant engineer in Anderson; and Harold E. Moss, with Fiberglas since 1943, named Anderson plant industrial engineering manager.

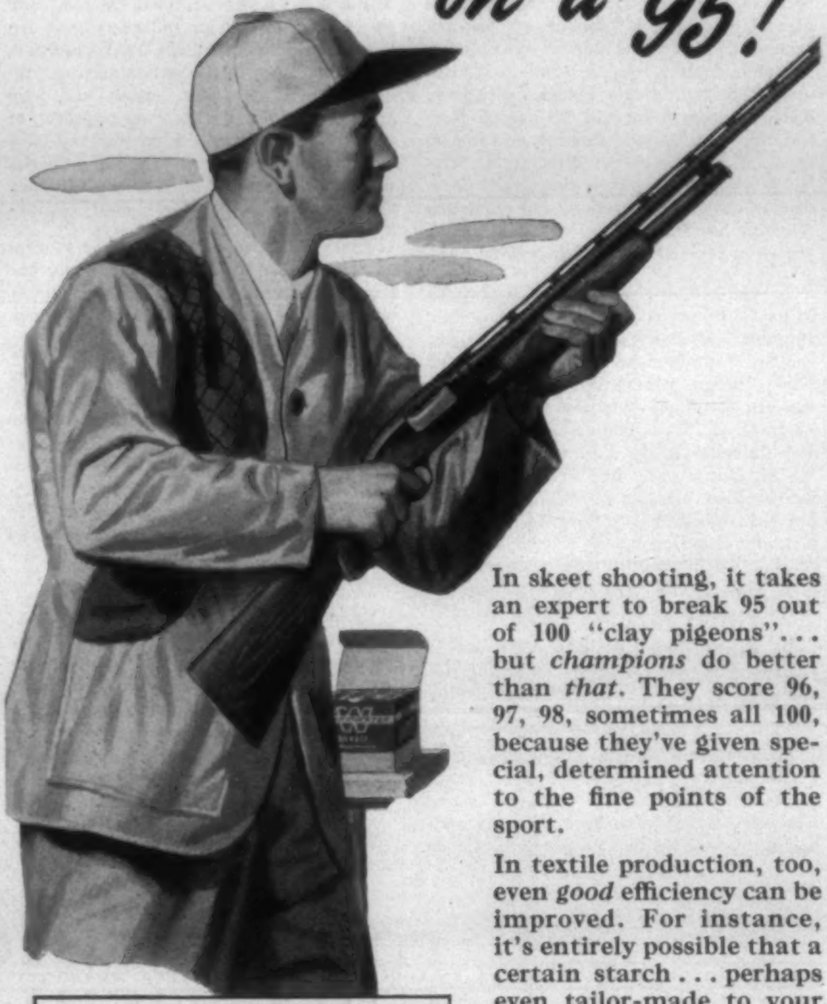
Joe W. Jelks, who has been industrial relations manager of the Winnsboro, S. C., division of United States Rubber Co. since 1942, has joined Riegel Textile Corp. as personnel director of its Ware Shoals (S. C.) Division. . . . Noel E. Williams, formerly personnel supervisor, has succeeded Mr. Jelks as industrial relations manager at Winnsboro. Mr. Williams, a graduate of the College of Charleston and from the law school of the University of South Carolina, has been with the company since 1943.

W. H. Beattie, president of Woodside Mills, Greenville, S. C., recently was appointed to a vacancy on the Greenville County Children's Court Advisory Board.

Dr. Ernest W. Reid has been elected president of Corn Products Refining Co. He succeeds Morris Sayre who has been elected vice-chairman of the board. Howard G. Wascher, who is also retiring as executive vice-president, has been elected chairman of the executive committee. Dr. Reid has been vice-president in charge of the chemical and research division since joining the company in 1943 and was elected a director in 1947. Immediately prior to his association with Corn Products Refining Co., he was deputy director general of operations at the War Production Board. Mr. Sayre started with the company in 1908 and was elected president in 1945. Prior to his election, he was executive vice-president of the company and plant manager of the company's largest plant at Argo, Ill. Mr. Wascher started with the company in 1908 and after service in the domestic field and extensive foreign experience, he was made a director of the company in 1940. Four years later he was elected vice-president in charge of foreign operations and in 1947 was named executive vice-president.

A consolidation of management functions of Alexander Smith, Inc., of Yonkers, N. Y. (formerly Alexander Smith & Sons Carpet Co.), which currently is constructing a new plant at Greenville, Miss., has resulted in

You CAN improve on a 95!



In skeet shooting, it takes an expert to break 95 out of 100 "clay pigeons"... but *champions* do better than *that*. They score 96, 97, 98, sometimes all 100, because they've given special, determined attention to the fine points of the sport.

In textile production, too, even *good* efficiency can be improved. For instance, it's entirely possible that a certain starch . . . perhaps even tailor-made to your own specifications . . . could contribute to an efficiency gain.

Why not call your Anheuser-Busch representative? He'll be glad to come and talk it over.

CORN STARCHES
DEXTRINES
GUMS
CORN SYRUPS

Phone or write

ANHEUSER-BUSCH, INC.

CORN PRODUCTS DEPARTMENT
ST. LOUIS

ST. LOUIS, MO.
721 PESTALOZZI

CHARLOTTE, N. C.
607 JOHNSTON BLDG.

NEW YORK, N. Y.
33rd & 12th AVE.

new titles for a number of the firm's executives. William F. C. Ewing is now president and chairman of the board of Alexander Smith, Inc., and Wilbert C. Hammel becomes a vice-president of the firm and general manager of its carpet division. James M. Elliott has joined the company as administrative vice-president and treasurer, Robert P. Ridges becomes vice-president and comptroller and William J. Kennedy has been elected secretary and assistant treasurer. In the carpet division H. Stanley Worthington has been named vice-president in charge of operations and A. Griffin Ashcroft has been elected vice-president in charge of research and development.

A. Frank Kelly, who joined Burlington Mills Corp. several months ago, has been appointed assistant superintendent of the Bur-Mil Cascade rayon plant at Mooresville, N. C. Before joining Bur-Mil, Mr. Kelly was associated with Scotland Mills, Laurinburg, N. C., West Point (Ga.) Mfg. Co., and Callaway Mills, LaGrange, Ga. . . . W. M. Dutton, who has been in charge of the Vamoco plant at Franklinton, N. C., has been transferred to Newton, N. C., as assistant superintendent of the Bur-Mil rayon plant in that city. He replaces Norman Major, who was transferred to the firm's Brighton plant at Shannon, Ga.

W. Beatty Armstrong of Lowell, N. C., is now second shift overseer of carding and spinning at Globe Mills, Mount Holly, N. C.

Recent appointments at Erwin Mills, Inc., Cooleemee, N. C., include that of James L. Moore as production manager of the new warp room; Frank Boyd, formerly with Springs Cotton Mills, Lancaster, S. C., as first shift assistant overseer of No. 3 card room; and Oscar L. Phillips, formerly with Red Bank Cotton Mills, Lexington, S. C., third shift assistant overseer of No. 3 weave room.

A. A. Wright, vice-president of Deering, Milliken & Co., has accepted the chairmanship of the textiles and mills section in the Greater New York Fund's 1951 campaign. Group chairmen in the section serving with Mr. Wright are: silks, rayons and yarn group—John D. Revene, vice-president of Chase National Bank of the City of New York; woolens and worsted group—Charles Borne, vice-president of William Whitman Co.

James T. Gordon, manufacturer's agent of Greenville, S. C., has taken over the Heany Industrial Ceramic Corp. line of textile guides in North and South Carolina.

Joseph H. Bennis, president of New York & New Jersey Lubricant Co., was justifiably proud when on April 21, he received congratulations on the 55th anniversary of the founding of the company. Mr. Bennis has been continuously associated with the company almost since its inception. He likes to point out that it is possibly the only lubricant company that has been operating uninterruptedly since before the turn of the century under its original management.

Raymond W. Jacoby of Ciba Co., Inc., has been named Olney Medalist for 1951 by the American Association of Textile Chemists and Colorists, and will receive the award this Fall during the organization's annual convention in New York City.

OBITUARIES

Clarence A. Carrell, 54, Atlanta, Ga., district sales manager of Acme Steel Co., died suddenly May 5 at his home in Decatur, Ga. A 30-year veteran with Acme Steel, Mr. Carrell had served both in the home office and in the field organization, chiefly in the Indianapolis and Atlanta territories. Surviving are his wife and two daughters.

Russell T. Fisher, 59, who served as president, secretary and treasurer of the National Association of Cotton Manufacturers from 1936 to 1950, died April 24 at his home in Quincy, Mass. Mr. Fisher, who retired last October, was the association's first "non-manufacturing" president. He is survived by his wife and three daughters.

Ethelbert Harman, 70, former secretary-treasurer and director of Sayles Finishing Plants, Inc., Saylesville, R. I., died April 25 after a long illness. Mr. Harman was associated with the company for 52 years before his retirement in December, 1946. His wife and a son survive.

W. B. Pursifull, 37, purchasing agent for the Cranston Print Works plant at Fletcher, N. C., died April 30. Mr. Pursifull had been associated with Cranston for about a month, and prior to joining the textile firm was Asheville, N. C., area sales manager for B. F. Goodrich Co.

Parker M. Smith, 57, president of Smith, Drum & Co., died April 25 at his home in Philadelphia, Pa. He was the second son of Robert P. Smith, one of the founders and the first president of the company. Mr. Smith became associated with the company following his graduation from Temple University in 1912. He had served as president since 1937. His wife and a brother survive.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

HENDERSON, N. C. — Production of sheetings at Henderson Cotton Mills will be doubled when a $2,000,000 expansion program, now under way, is completed. Also, the average yarn count in Harriet Cotton Mills, operated under the same management, will be increased from 17½ to 23½. At the Henderson plant, 224 Draper 40-inch model X-2 looms will be added, increasing the total looms to 448. Also, 7,812 Whitin ring spindles with picking, carding and other supporting machinery will be installed, increasing the plant's spindleage to 42,516. At the Harriet plant it is planned to add 4,032 Whitin ring spindles, raising the total spindles to 34,368. Complementary and twisting equipment also will be installed at Harriet.

EASTMAN, GA.—Continuing a modernization plan begun two years ago with the installation of Saco-Lowell long-draft spinning and new Barber-Colman spooling and warping, Eastman Cotton Mills has just completed an Ashworth Brothers' supervised overhauling of all their cards; also, the installation of Saco-Lowell continuous strippers. They have purchased 48 deliveries of Ideal one-process drawing and reworked all slubbers. Thirty additional looms have been installed. They have purchased a new Curtis-Marble folder, a new Economy hydraulic baling press, and a new Curtis-Marble inspecting table. The shop has been improved with the following from the Sunray Co. of Spartanburg, S. C.: engine lathe, radial drill, key seater, Johnson power hack saw, arc welder, and numerous small power-driven hand tools. In addition to the purchases mentioned above, the entire humidification system has been modernized, extended, and reworked. The exterior woodwork of the entire mill was re-painted last Summer, and the paint has been purchased for the painting of the interior of the mill.

SHANNON, GA.—A new and improved insurance program for all employees of Brighton Mills, Inc., went into effect April 1, according to President Howard R. Hart This is part of the improvement program which Burlington Mills Corp. now has under way at Brighton, Mr. Hart said. The new program provides the following insurance benefits free to all employees: $500 life insurance; $10 weekly accident and sickness benefits; $6 daily hospital room and board; a maximum of $30 for miscellaneous hospital expenses; a maximum of $150 surgical benefits and $50 maternity delivery fee. Mr. Hart pointed out that the new insurance program is broader in coverage and more suitable for Brighton employees than anything provided before.

GREENVILLE, S.C.—Work has been completed on an addition to and remodeling of the cotton procurement and research building of J. P. Stevens & Co., Inc., which increases the area of the original building by some 50 per cent, according to an announcement by W. Gordon McCabe, Jr., manager of the raw cotton department of the Stevens company. The original building's 2,900 square feet of floor space has been increased by 1,665 square feet, making a total of 4,565 square feet. This latest

TEXTILE ENGINEERING

COTTON
RAYON
WOOL
SILK
NYLON

Plans and designs for all types of projects related to the textile industry. Appraisals, modernization studies, machinery layouts, air-conditioning, power and water filtration plants, and other phases of textile engineering.

ROBERT AND COMPANY ASSOCIATES

Architects and Engineers
ATLANTA

Conditioners
and Twist Setters

for

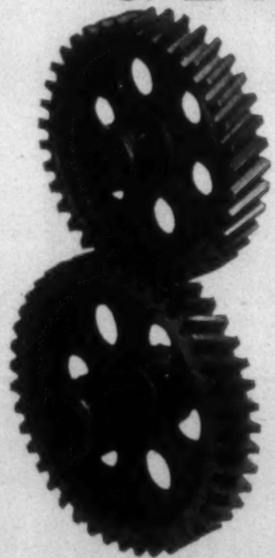
Nylon—Rayon—Wool—Cotton—Silk
F. F. Hosiery—Throwing—Weaving—Spinning

Made in Charlotte

The W. A. KENNEDY CO.

Dilworth Station • Charlotte, N. C.

Custom Cut
GEARS



SILENT CHAIN DRIVES
•
ROLLER CHAIN DRIVES
•
VEE CORD DRIVES
•
SPROCKETS
SHEAVES
COMPOUNDS

Write For Stock Sheet on Gears

FERGUSON
GEAR COMPANY
GASTONIA, NORTH CAROLINA

PILOT'S
GROUP PLAN MEETS
ALL *YOUR*
REQUIREMENTS . . .

When our group specialists in the field, and our group analysts in the home office, combine their knowledge and experience into formulating a group plan for you, you get a tailor-made, custom-built group plan, designed to meet all your requirements. Whether it be group life, group hospitalization and surgical benefits, or all of them combined into one great plan, a Pilot Planned group policy will satisfactorily cover all your insurance needs.

Before you buy, contact,
J. F. FREEMAN, Vice-President
or one of these group specialists:

Joe McLean
Ed Maxwell
Glenn Lambert

PILOT LIFE
INSURANCE COMPANY
O. F. Stafford, President
GREENSBORO, NORTH CAROLINA

improvement increases the cotton classifying room from 800 to 2,250 feet. The building is located adjacent to Dunean Mills, and is of face brick construction with pre-cast concrete trim. It is completely air conditioned for development of a uniform temperature of 72° F., with 65 per cent relative humidity, necessitating the use of a 40 ton refrigeration unit. Two types of grading lights are employed in the classifying room. Offices in the building have also been re-arranged and the structure includes modern laboratory facilities for grading cotton.

CHATTANOOGA, TENN.—The big expansion program at Du Pont's nylon yarn plant here, third largest in the world, is nearing completion. Completed in 1949 at a cost of about $20 million, the plant now represents an investment reported to be over $30 million. The program now being completed included both building additions and new equipment. This construction program almost doubled the plant's manufacturing area, which now has a floor space of 562,000 feet. The boiler house for steam generation for processing purposes was enlarged and a new boiler unit added. The work currently under way is the utilization of available inside building space.

MARION, N. C.—Employees of the weaving department at Marion Mfg. Co. recently completed 2,000,000 man-hours of work without an injury that resulted in loss of working time. A certificate of appreciation, signed by T. L. Richie, general superintendent, and R. W. Twitty, president of the concern, was presented to James D. Wyatt, superintendent of weaving, in recognition of the outstanding safety record.

SPARTANBURG, S. C.—Two hundred and nine veteran employees of Drayton Mills were honored May 4 at the firm's fifth annual service awards banquet. G. C. Simmons, production manager, was master of ceremonies at the event. Principal speaker was Thomas L. Carroll of Charlotte, N. C., assistant to the executive vice-president of the National Cotton Council, whose topic was "Crisis on Main Street."

KAUFMAN, TEX. — Industrial Textile Mills, Inc., a unit of Industrial Wiping Cloth Co. of New York, is expected to begin operations here this month. The new mill will employ between 250 and 300.

CEDARTOWN, GA. — Celebration of the 25th anniversary of Goodyear Tire & Rubber Co.'s Cedartown textile mill, first tire cord fabric operation in the Southeast, was observed May 12 with a parade, barbecue and open house as highlights of the day's program. E. J. Thomas, president of the Akron rubber firm, delivered a congratulatory address to employees and their families prior to the outdoor barbecue. He awarded lapel pins to 12 employees who have completed 25 years' service with the company. Goodyear's pioneer venture in the South, Clearwater Mill No. 1 at Cedartown, was

McLeod's

mac oak

BROOKSBANK'S TAN
THE BEST CHECK STRAPS

McLEOD LEATHER & BELTING COMPANY
MANUFACTURERS

GREENSBORO • • • NORTH CAROLINA

opened April 15, 1926. A little more than 300 employees produced just over a million pounds of tire fabric the first year. Today the mill employs almost 1,400 and last year's record-breaking production reached 28 million pounds of tire cord fabric. Success of the early years of the Cedartown mill was instrumental in the company's decisions to establish textile mills at Cartersville and Rockmart in Georgia, another textile operation at Decatur, Ala., and a tire factory at Gadsden, Ala.

BELTON, S. C.—Batesville Mills, with authorized capitalization of $40,000, was chartered April 25 to engage in the general textile manufacturing business; to spin, weave and process cotton, synthetic and other fibers. W. C. Clinkscales is listed as president of the new concern.

BISHOPVILLE, S. C.—Bishopville Finishing Co., with a capital stock of $1,600,000, was granted a charter last month. J. M. Reeves is listed as president and treasurer of the concern. Vice-presidents are J. E. Reeves, J. H. Wyatt, Andrew E. Collins and W. P. Ligon. G. C. Hill, Jr., is secretary. The new concern proposes to bleach, dye, finish, mercerize and manufacture cloth of all kinds; to manufacture garments of all descriptions and all kinds of cloth.

GREENVILLE, S. C.—Sale of the Union Bleachery Division here of the Aspinook Corp. to Concord Textile Co., Inc., New York, has fallen through. Aspinook officials announced May 1 that the proposed transaction did not materialize because of the failure of Concord to consummate its contract of purchase.

LAURENS, S. C. — Palmetto Worsted Mills, with a capital stock of $25,000, was chartered May 1 to manufacture, convert, finish and deal in yarns and textiles of wool, cotton and other materials. Richard C. O'Brien is listed as president of the concern.

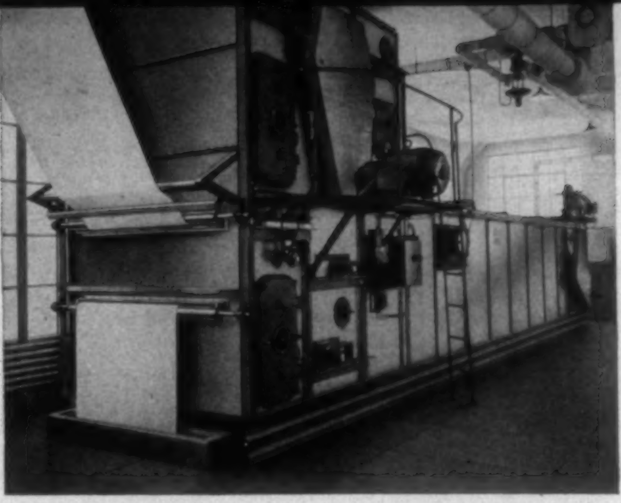
BELTON, S. C.—Daniel Construction Co. last month began initial work for construction of a $2,000,000 rayon weaving mill here for Peerless Mills Co., Inc. The building will be one story, constructed of steel, jumba brick and concrete, approximately 300 feet square with a penthouse on top to house the air conditioning apparatus. The office will be in front of the building and will contain reception room, employees' entrance and general and private offices. Centrally located in the mill will be a cafe, rest rooms and supply room. The plant will be equipped with new machinery and ultramodern in every respect. It will provide employment for approximately 300 men and women. Present plans are for the building to be completed Aug. 30.

CLINTON, S. C.—A $1,500,000 enlargement and improvement program at Lydia Cotton Mills here is almost completed and machinery in a new story of the huge mill is expected to be in operation around July 1. The 276 45-inch X2 Draper looms that will bring the total number of looms in the plant to 1,560 have been installed and other work is being done toward getting the new section ready for operation. The new story was added at the bottom of the mill building. Part of that space had been used for storage and the floor had to be lowered

CONTINUOUS VAT DYEING

Improved by

OPEN WIDTH BLEACHING



Open width bleaching, as accomplished in the Proctor-Mathieson system, is proving ideal preparation for fabrics that are to be vat dyed in dark shades . . . fabrics of the type called for in many government specifications. With this system fabrics *in the open width* are gently conveyed through the caustic and peroxide steaming cycles. This combines the advantage of *continuous bleaching* with a *minimum of cloth pressure.* Packing and roping of the fabric is eliminated. Handling the fabric this way—in the open width—chafe marks, rope marks and the other distortions which cause defects in continuous vat dyeing are eliminated.

The result—bleaching time is reduced, costs are kept down, fabrics are dyed with greater ease—and you are in much better position to handle important government contracts.

Write for bulletin 346 which explains this system in greater detail.

Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending.

★

OTHER EQUIPMENT FOR DEFENSE CONTRACTS

Proctor engineers are keeping in close touch with government requirements and specifications on all lines of textiles. They are ready to assist any manufacturer in designing equipment to meet his special requirements.

★

PRIORITY INFORMATION

As priorities become the order of the day, Proctor & Schwartz are maintaining up-to-the-minute information . . . and will help any manufacturer in need of equipment for defense work to secure the necessary priority from the government to speed delivery.

★

PROCTOR & SCHWARTZ INC •

679 TABOR ROAD • PHILADELPHIA 20 • PA •

about six feet and the foundations of the structure improved. The mill building already was three stories high and now is four stories, with two additional weave sheds. The enlargement program meant increasing the number of spindles by 16,000 to a total of 77,000, and increasing the number of square feet in the building to 68,000. The new section is being air conditioned throughout. This project is a continuation of a general enlargement and improvement program for Lydia and for Clinton Cotton Mills that has seen an expenditure of around $4,000,000 in plant improvements and community facilities during the last four years.

Cateechee, S. C. — Potter-Shackelford Construction Co. of Greenville, S. C., has been awarded the contract for construction of an extension to Norris Cotton Mills.

Elizabethton, Tenn.—Officials of Textron, Inc., are considering Elizabethton as the site for a proposed seven million dollar nylon tricot plant. If a bond election called for May 31 is approved by residents of the municipality, the city would furnish four million dollars and Textron the remaining capital.

Lincolnton, N. C. — A commission twisting and winding plant equipped for plying 16s to 30s cotton yarns has begun operations here under the name of Rudisill-Smith Co. The unit is in the building formerly occupied by Tait Yarn Co. It has about 3,000 twisting spindles and winding machinery enabling put-ups on cones and tubes. The plant has about 6,000 square feet and now has around ten employees. M. Y. Rudisill, president and treasurer of Maiden (N. C.) Spinning Mills, Inc., and W. H. Smith, superintendent, are partners in the new firm.

Marietta, S. C.—Deering, Milliken & Co. recently announced plans for construction of a new plant on a 1,000-acre site near Marietta. The cost was not announced. Daniel Construction Co. of Greenville, S. C., has been awarded the contract for construction of the plant which will contain more than 100,000 square feet of floor space. It is reported that the new facility will be utilized as a tricot knitting plant. It will be similar in design to other Milliken mills built in the past several years in South Carolina. Completion of the new plant is expected by August of this year. William S. Manning has been named superintendent of the new plant, which will be called the Gayley Mill.

Gastonia, N. C.—A number of Gaston County textile concerns were honored here recently by the North Carolina Department of Labor for their work in accident prevention. Highest award went to Firestone Textiles of Gastonia for having qualified for the safety award for four consecutive years. Another four-year award was won by Belmont (N. C.) Throwing Corp. Other firms cited for their safety work were Parkdale Mills, Inc., Gastonia Weaving Co., American Yarn & Processing Co., Holly Knit, Inc., Belmont Knitting Co. Plant No. 4, Gossett Machine Works, Gray Mills, Inc., the Belmont, Mays and Mayflower plants of Burlington Mills Corp., Alexander Machine Co., Inc., American Textile Sheet Metal Works, Ferguson Gear Co., Gastonia Belting & Supply, Gastonia Roller Flyer & Spindle Co., Jenkins Reneedling Co., Inc., and Todd-Long Picker Apron Co.

Mooresville, N. C.—Mooresville Mills has increased insurance benefits for employees and their dependents. The premium rate of 35 cents a week per worker remains the same, with added coverage financed by the company. The program allows $150 surgical fees for employees and dependents. It increases hospital room allowance to $6 a day and raises to $7 the daily allowance that an employee may draw under the sickness and accident clause.

Orange, Calif.—Construction is under way on a $500,000 cotton mill here to be operated by California Cordage Co. The new plant, which will contain 47,000 square feet, will produce heavy cotton yarn, mostly for government use.

For The Textile Industry's Use

EQUIPMENT — SUPPLIES — SERVICES — LITERATURE

Emmons Introduces New Reed

Emmons Loom Harness Co. of Lawrence, Mass., and Charlotte, N. C., recently introduced a new type of loom reed to the textile industry. The reed has the lightness and resiliency of pitch-band construction, yet because the ribs are magnesium or aluminum, some of the stiffness and strength of an all-metal reed is also present, the company states.

The special RigidReed construction means that the ends of the dents are held more securely by stronger aluminum or magnesium ribs, are more flexible and always remain in the same place. End bars riveted in place between each pair of ribs do not require reed caps. This arrangement allows tension to be given the selvage dents by peening the end bars. Emmons claims that RigidReed dents can open and spring back more readily since they do not tend to imbed in the rib as in the case of a conventional reed. No tubing, backstrips, or inside metal strips are required for additional strength. RigidReeds may be soldered at the ends or full length. They are available in standard one-half-inch and five-eighth-inch rib sizes only. Dents may be either carbon or stainless steel.

An outstanding feature, in view of today's high equipment cost, is that Emmons has listed RigidReeds at prices only nominally higher than for reeds of conventional pitch-band construction. A brochure giving full details is available on request. Address Emmons Loom Harness Co., Lawrence, Mass. or Charlotte, N. C.

Individual Card Drive

American Pulley Co. announces the availability of a new, individual cotton card drive so designed that heavy starting loads do not require the use of special high-torque motors or special starting controls. This advantage is gained through the use of a unique centrifugal clutch mounted as an integral unit with the driven sheave.

The drive uses a standard V-belt with an adjustable-speed sheave on the motor and the centrifugal clutch sheave on the 5-to-1 ratio reduction unit. This unit is mounted directly on the card drum shaft. The entire drive is mounted in the card arch, and is completely supported by the card shaft pillow block. The torque of the entire drive is designed so that it is taken horizontally by the card frame. The adjustable-diameter sheave on the motor provides for a 25 per cent variation in card speeds, thus making possible the best speed for processing various fibers under all operating conditions. This card drive is entirely enclosed in a heavy guard, and extends only 3½ inches beyond the end of the card shaft.

It is said that these individual drives save space, increase card room flexibility, and make possible better lighting and ventilation of card rooms. For information, write to American Pulley Co., 4200 Wissahickon Avenue, Philadelphia 29, Pa.

Graton & Knight Catalog

Recently released by Graton & Knight Co., Worcester, Mass., and its affiliate, Dixie Leather Corp., Albany, Ga., is a comprehensive catalog of the textile leathers produced by them. In size, scope and fidelity of illustration and text, the book marks a new departure in a work of its type, and consists of 24 handsomely illustrated pages;

through careful planning and studied group photography, the products on each facing page are in exact size relationship and the color of each piece of leather shown is with as realistic accuracy as modern lithography can achieve.

The book represents months of painstaking research, as exemplified by unusual stroboscopic photographs of looms in motion. These were taken at Lowell (Mass.) Textile Institute—at 1/20,000th of a second —and illustrate the action of the shuttle, picker, check strap, boxing leathers and other parts, the functioning of which cannot be detected by the naked eye when the loom is in operation. The catalog is to be distributed through the companies' field organization, and it is expected that it will make a distinct and favorable impression on the industry.

Signode Customer Magazine

The Spring edition of *Signode Seal,* the popular, informative house magazine issued periodically by Signode Steel Strapping Co., greeted its more than 50,000 readers recently in an entirely new format. The book has been completely redesigned from cover to cover, and the size practically doubled. Doing so permits maximum use of dramatic, story-telling photography, better typography and more interesting page layouts.

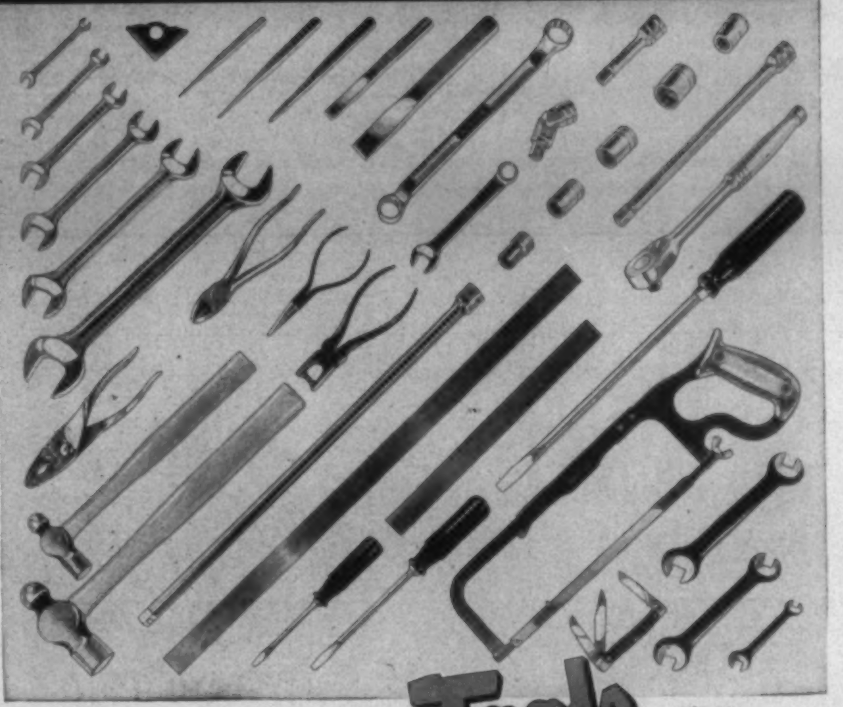
The editor, James R. Williams, Signode's manager of sales promotion, states that the editorial contents will continue to feature articles which will picture and describe better methods of packaging, car loading, car bracing and materials handling. Thus, readers will be kept abreast of advanced applications of steel strapping which can reduce loss and damage claims, effect savings in man power and materials, and increase customer good will. Mr. Williams said also that the *Signode Seal* will include permanent features such as a special editorial page devoted to discussions of problems affecting all carriers and shippers; an index of future articles which will appear in leading industrial publications about better packing and safe transit methods; and a column by A. N. Perry, manager of sales engineering, on research and developments in methods of applying steel strapping.

Contents of the new Spring issue of the magazine include a story about packing and shipping the Vermont marble used in the U. N. Secretariat Building; package protection methods developed for the Kennecott Wire & Cable Co.; the use of automatic batch counters by Signode to protect buyers of Signode seals; and a timely article by J. M. Moon, director of sales, describing the serious shortage of steel strapping, and what can be done by shippers and carriers to help remedy the situation. Copies of the new *Signode Seal* are obtainable upon application to James R. Williams, Editor, *Signode Seal,* Signode Steel Strapping Co., 2630 N. Western Ave., Chicago 47, Ill.

Compound Meter Manifold

Large water users, textile mills and other industrial plants, have long had the problem of proper meter maintenance without costly shutdowns or extra-hour work. To answer this problem a new compound meter manifold unit has been introduced by the

BEST BUY! in any loom fixer's kit



*Snap-on Tools

SET No. 2040-LF

make skilled hands quicker, surer, safer

With a carefully-planned special set of Snap-on loom fixer's tools such as these, a good loom fixer is a more valuable man —for the mill as well as himself.

He's a safer man on the job, because he's got the *right* tools—tools that fit properly, balance right, don't slip. He's faster on the job because Snap-on Tools bring out all the natural skill in a man's hands. He's surer, because, whatever the adjustment or repair, he has the tools to do it *right.*

He's a real profit factor, because his looms will show fewer breakdowns, less down-time, less sub-standard production.

The Snap-on factory-trained tool man is *always* at your service, between his regular visits. Tool surveys or special tool consultations cost you nothing. Just call your nearest Snap-on factory branch, or write—

SNAP-ON TOOLS CORPORATION
8046-E 28th Avenue, Kenosha, Wisconsin

41 factory branches

CHARLOTTE BRANCH
210 South Poplar Street
Charlotte 2, N. Carolina

Snap-on Tools
THE CHOICE OF BETTER MECHANICS

*Snap-on is the trademark of the Snap-on Tools Corporation

Rockwell Mfg. Co. of Pittsburgh, Pa. The manifold assembly consists of two Pittsburgh-Empire single register compound meters in combination with four Nordstrom lubricated plug valves and two eight-inch reducing manifolds, so arranged that for maintenance, one side may be shut down at a time without complete interruption of service.

By isolating one side, a meter can be removed and exchanged for one serviced and calibrated in the shop, while flow continues through the other meter passage. It is possible, with this assembly, to check-test a meter in place without a break in service. To make such a test, the discharge valve of the meter may be shut off and the test plug in the meter body used for the test run.

The manifold assembly has the same flow capacity—1,600 G.M.P.—as the American Water Works Association requirement for an eight-inch compound meter. As a unit, it has a laying length that is within the American Water Works Association standard for a single eight-inch compound meter. Sold as a unit, it is priced below a single eight-inch compound meter, and the complete manifold of meters, valves and piping weighs 100 pounds less than a comparable eight-inch compound meter. The battery can be handled as a complete assembly or broken down into sections, the heaviest of which is 170 pounds. Further details can be obtained from Rockwell Mfg. Co., 400 North Lexington Avenue, Pittsburgh 8, Pa.

Better Service at Lower Cost

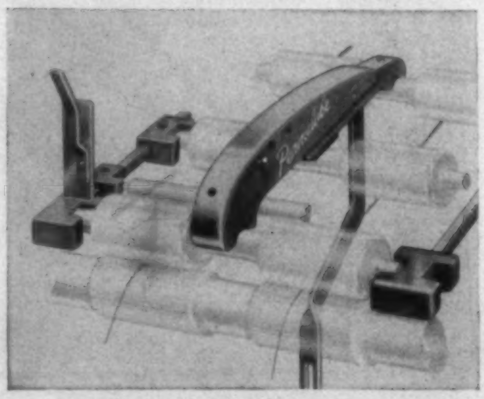
with WHITEHEAD

Permalube

OILLESS BEARING

SADDLES

and NEBS



Now your mill can use Whitehead Permalube Saddles and Nebs at a first cost that is usually less than for old-fashioned iron saddles and nebs. There never has been a comparison of second costs, for Whitehead Permalube Saddles and Nebs eliminate oil from rolls and yarn, reduce cleaning, won't score the rolls, can't cock or wander. You can install them and forget them.

Over 500,000 Spindles Now Equipped With These SELF-OILING Products

The new, improved Whitehead Saddles are being used in over 150 mills on more than half a million spindles. More and more mills are changing systematically to Whitehead Permalube assemblies exclusively.

Only Whitehead Permalube Products Offer These Money-Saving Features

- Years of trouble-free service
- No oiling of Permalube—Infrequent oiling of Oilite.
- No oil on yarn from top rolls
- Less lint accumulation
- Easier picking—less often
- Very low friction coefficient
- Aluminum bearing holders won't score rolls
- Pivot point permanently adjusted
- Saddle self-aligning. No tilting
- Bearings quickly replaced if ever necessary for only 3c to 5c each

NEW! BRONZE OILITE INSERTS IN PERMALUBE

Now furnished as standard in front saddle and neb bearings.

Solid Bronze Oilite front saddle bearing is also available for extra heavy loads and scored roll necks. (This requires a few drops of oil every few months.)

We have Saddles and Nebs for most all forms of drafting and invite you to

TRY THEM FREE!

Send us a right-hand and center neb and a saddle of the types you are now using and indicate the number you need for one side of your most troublesome frame. We will furnish a complete set of nebs and saddles for one side absolutely free of charge or obligation. But we warn you—once you've tried Whitehead Permalube Saddles and Nebs, you'll want them on all your frames.

Prompt Delivery from Ample Stocks

PATENTED AND MANUFACTURED BY
WHITEHEAD ENGINEERING CO.
522 WEST PEACHTREE STREET, N.W.
ATLANTA 3, GEORGIA

EXCLUSIVE DISTRIBUTORS
Meadows Manufacturing Co.*
BOX 4354 • ATLANTA, GEORGIA

*SEE YOUR MEADOWS MAN
SOUTH CAROLINA
J. P. Coleman, Box 1351, Greenville, S. C.
NORTH CAROLINA
Walter Coleman, Box 782, Salisbury, N. C.
NORTHERN REPRESENTATIVE
Matthews Equipment Co., 93A Broadway, Providence, R. I.
ALABAMA, GEORGIA, MISSISSIPPI
Sam Hogg, Box 4354, Atlanta, Ga.

Westinghouse Catalog

The equipment needed to do a job of air conditioning—cooling, heating, dehumidifying, cleaning, filtering, ciruclating; or ventilating; or air handling—is covered in a 16-page condensed catalog available from Westinghouse Electric Corp. The equipment listed has been carefully selected from the full line. Covered in the catalog are: hermetically-sealed compressors, condensers, water coolers, heating coils, cooling coils, air-handling units, heating and ventilating units, surface dehumidifiers, air washers, filter washers, central-plant type completely self-contained air conditioning units, "within-the-space" type self-contained air conditioning units, unit heaters, industrial heaters, centrifugal fans, axiflo pressuer fans, V-belt ventilating sets, direct-connected ventilating sets, industrial fans, centrifugal compressors, induced draft fans, forced draft fans, and inlet vane control assemblies. For a copy of the full-line catalog SA-669 write to Westinghouse Electric Corp., Sturtevant Division, 200 Readville Street, Hyde Park, Boston 36, Mass.

Auto-Stop Meter

For automatic and accurate control of soap solutions, cold, warm and hot water, etc., in textile plants, a new Auto-Stop liquid meter has been released by Neptune Meter Co., 50 West 50th St., New York 20, N. Y. The Auto-Stop meter consists of the new Model 432 register mounted on the famous Neptune liquid meter, coupled with a quick-closing valve. This meter, inserted in the line near the washers or other processing tanks, automatically shuts off the flow after a pre-determined quantity of liquid has been delivered.

Typical applications of this new meter are: Accurate measurement of soap solutions to washers and fulling mills in woolen and worsted mills. Accurate measurement of water to starch cooking kettles. Measurement of warm, hot or cold water into all kinds of batching and processing operations. Operation is simple. The tripping mechanism is first set by pushing the buttons on the register until the number of gallons desired shows up on the numeral wheels just above the buttons. The register is then cleared back to zero by turning the reset handle at right, the valve is opened and the operator is free to devote his attention to other jobs. The Auto-Stop tripping device automatically cuts off the flow when the exact quantity is delivered. The large numerals on the face of the meter keep pace with the flow, and provide a visual check when the delivery is finished. The small shuttered totalizer also on the face of the register keeps cumulative totals, from which daily, weekly, or monthly figures can be recorded.

Flow can be stopped instantly at any time by pressing the emergency stop button on the register. This does not affect the meter reading or Auto-Stop setting. The delivery can be continued to its conclusion by reopening the valve, or the register can be reset for a new quantity before continuing. This does not affect totalizer recordings. The streamlined register is attractive, easy to keep clean, weatherproof, and dust-proof.

Factory calibration is sealed. It is furnished in one-inch, $1\frac{1}{2}$-inch and two-inch sizes. Capacities from 30 to 100 gallons per minute, depending on size of meter and maximum temperature for which it is selected.

Improve Laboratory Service

Arnold, Hoffman and Co., Inc., Providence, R. I., and Charlotte, N. C., has revised its sample packaging and laboratory report methods to give customers an improved service. The new AHCO laboratory report forms are entirely self-contained and provide a sturdy customer record for ready reference. New AHCO sample packages insure safe arrival of liquid and powdered samples and give immediate shelf identification if used in storage space. AHCO has also adopted a new sample bottle label which will give spot shelf identification. These improvements are another step in the progressive AHCO customer service program for 1951.

New Leveling Jack

A newly designed EMPCO leveling jack has been announced by Enterprise Machine Parts Corp., 2731 Jerome Avenue, Detroit 12, Mich. It is stated that this EMPCO jack, Style JC, will support 20 tons and lift 8,000 pounds without over-exertion on the wrench. Using a time proven principle, it vertically raises or lowers by simply turning the adjusting nut to right or left. Anchor bolt hole through the jack assembly allows clearance for three-quarter-inch diameter bolt, thereby making it possible for the Empco jack Style JS to be located at the precise point where equipment was designed to be best supported.

To compensate for uneven floors, the top of lift screw has a concave spherical radius into which glides the convex spherical radius on the botton face of the aligning disc. This permits sufficient float for the level alignment of machine while insuring maximum bearing. Vi-Sorb mounting pads, the special vibration absorbing felt developed to reduce machine maintenance costs due to vibration, is available in quarter-inch thicknesses up to one inch. These pads are cut to fit the under part of Jack base. Style JS Empco jacks all have $\frac{3}{8}$-inch leveling adjustment and come in three heights. The height of lowest jack assembly is $1\frac{3}{4}$ inches minimum to $2\frac{1}{8}$ inches maximum. Next size is two inches to $2\frac{3}{8}$ inches and third size is three inches to $3\frac{3}{8}$ inches high. These dimensions do not include Vi-Sorb mounting pads.

Montague Opens New Plant

B. L. Montague Co., Inc., officially opened its new Charleston, S. C., plant May 8. The company describes this new division as another progressive step in providing better service to Montague customers. The facilities of the Sumter, S. C., and Charleston plants offer complete engineering sales service producing specialized industrial machinery and a combined stock of heavy electrical and industrial supplies said to be the largest in the Southeast. Complementing the Charleston machine and mill supply stocks will be complete machine shop and fabricating shop facilities equipped to do general repairs, job welding and complete steel fabricating for mills and general contractors, including tank and plate work.

Industrial Control Catalog

Industrial Control for temperature, flow, pressure, liquid level and humidity, Catalog 8304, has been published by the industrial division of Minneapolis-Honeywell Regulator Co. This 60-page catalog presents over 100 different models of non-indicating electric, electronic and pneumatic controllers that have innumerable uses in industrial applications. A number of important additions to the previous line are shown. Among them are electronic, electric, and pneumatic insertion type temperatue controllers; magnetic starters and contractors; heavy-duty pneumatic positioning motors; pneumatic automatic reset relays, and both pneumatic and electric step controllers. Copies of Catalog 8304 may be obtained from the Minneapolis-Honeywell Regulator Co., Industrial Division, Wayne and Windrim Aves., Philadelphia 44, Pa.

New Carrier Models

Two models of reciprocating refrigeration machines specifically designed for air conditioning and refrigeration use in the 100 to 150 h.p. range are announced by Carrier Corp., Syracuse, N. Y. After having been

NON-FLUID OIL
TRADE MARK REGISTERED

Accept No Substitutes

There is a trend throughout industry to establish minimum standards for each lubricant grade used. The fallacy of such a procedure lies in the fact that NON-FLUID OIL so far surpasses these minimum requirements that it offers more lubrication at less cost per month . . . regardless of any difference in initial price.

Write for free testing sample of NON-FLUID OIL. See for yourself how it will effect worthwhile savings on the cost of machinery maintenance and bring about increased production by keeping machines in steady, spot-less service.

NEW YORK & NEW JERSEY LUBRICANT CO.

292 Madison Avenue, New York 17, N. Y. Works: Newark, N. J.

Southern District Manager: FALLS L. THOMASON, Charlotte, N. C.

WAREHOUSES: Atlanta, Ga.—Birmingham, Ala.—Charlotte, N. C.—Columbus, Ga.— Greensboro, N. C.— Greenville, S. C.— Chicago, Ill.— Detroit, Mich.— Providence, R. I.—St. Louis, Mo.

Don't you believe it! If anyone approaches you with products they swear to be exact imitations of NON-FLUID OIL, *at a lower price,* don't you believe it! The basic factors in all industrial production preclude paying a little and getting a lot . . . Remember, you only get what you pay for!

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

Insure Against
Rust and Snagging

with EXCEL
No. 600
Slatted
Conditioning
Trucks

Brass screws and cadmium plated bolts eliminate any possibility of rust. Because they are fastened from the outside they also insure against snagging. The Excel No. 600 is constructed of highly polished cypress or maple and finished with two coats of heat and acid resistant Tropelite to form a durable snag-proof surface. Slotted sides, ends and bottom permit perfect saturation and drainage.

Casters are securely bolted to bottom of truck.

Representatives:

Mr. N. W. Eurey........Lincolnton, N. C.
Mr. Paul Eurey..........Lincolnton, N. C.
Industrial Suppliers, Inc.
La Grange, Ga.
Fall River Mill Supply Co.
Fall River, Mass.
Mr. Theodore Huston
2601 N. Broad St., Philadelphia, Pa.

EXCEL
Textile Supply Co.
"Excel Trucks Excel"
LINCOLNTON, NORTH CAROLINA

thoroughly field tested, the machines are now being produced in quantity, taking their place alongside Carrier's centrifugal refrigeration machine, and absorption refrigeration machine.

The reciprocating machine—designated as the Carrier 30B—is furnished as a complete package with compressor, cooler and condenser, and all inter-connecting piping, fittings, safety and capacity controls, gauge board and cooler and condenser stands included. Careful pre-engineering has assured precise matching of components for maximum operating efficiency and economy. Unusual compactness of assembly, provided through special design of pipes and fittings, reduces pressure loss to a minimum, guarantees over-all performance, and permits a wide range of applications where space is critical. The machine is particularly suitable for chilling water for air conditioning purposes and is readily adaptable to many industrial requirements, including direct product cooling, brine chilling and ammonia and chlorine condensing.

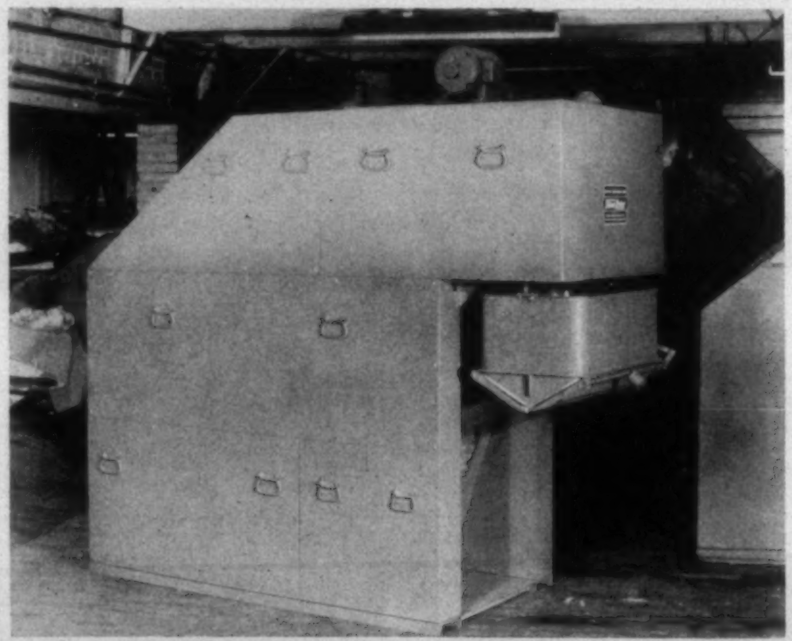
The heavy-duty reciprocating compressors used in 30B models are part of Carrier's standard list of reciprocating units. This list includes compressors ranging in size from three to 200 h.p. Four and six cylinder compressors of the type built into the new machines may be obtained as separate units for use with either Freon, ammonia or Carrene 7 refrigerants in 75 h.p. to 200 h.p. applications.

Other Carrier reciprocating compressors now available include two, three, four, six and eight-cylinder models for use with Freon over a range of three to 60 h.p. The four, six, and eight-cylinder models may be obtained in various duplex combinations in 60 to 125 h.p. sizes. Similar models in four, six and eight-cylinder compressors are being produced for use with ammonia in the five to 50 h.p. range. The Carrier list also includes a line of fractional horsepower hermetic compressors. A new line of hermetic condensing units of three, five and 7½ h.p. is being made available this year on defense orders only.

New Dye Intermediate

A new dye intermediate known as "Pep," hitherto available only in research quantities, has been introduced commercially by Winthrop-Stearns, Inc., according to Aaron Addelston, director of the special chemicals division. The product, chemically 1-prenyl-3-carbethoxy-pyrazolone-5, is used in the synthesis of extremely light-stable dyestuffs and colors, some of which are particularly suitable for color photographic processes, Mr. Addelston explained.

It is being supplied in standard drums of 250 pounds. The first laboratory sample of "Pep" was synthesized at the Sterling-



A NEW, 24-INCH UNIT designed especially for incorporation in the Fiber Meter Automatic blending system, to provide for the scientific proportioning of small percentages of reuseable waste throughout any fiber blend, has been announced by W. D. Dodenhoff Co. of Greenville, S. C. The new unit can be added to Fiber Meter systems now in operation or provided as part of new installation.

Basically, the 24-inch model is a smaller counterpart of the 36-inch Fiber Meter. Since waste, however, should properly be only a small percentage of the over-all blend, the new unit is designed to weigh out increments of as little as two ounces of waste, while each of the larger Fiber Meters in the system is accurately delivering a predetermined eight to 32 ounces of one of the component fibers.

The new unit, of course, becomes an integral and automatically-functioning part of any Fiber Meter automatic blending system into which it is incorporated. It is actuated by the same controls so that the waste is deposited on the conveyor belt simultaneously with the other components of the blend. Thus, it is pointed out, the reuseable waste is distributed evenly through the total amount of stock being run, and the percentage used can be kept accurate and consistent from day to day and week to week. As a result, it is said, discrepancies in processing the yarn and in the cloth are eliminated, and there gradually becomes less waste to contend with because of the uniformity and resultant better work.

Winthrop Research Institute one year ago. Winthrop-Stearns has manufactured another intermediate, (1-phenyl-3-methyl-parazolone-5) for many years. It was used principally in the pharmaceutical field, but since 1945, the preparation has been increasingly employed by the dye industry. Dye manufacturers discovered then that it was freer of impurities and off-shade coupling colors than grades previously used, Mr. Addelston explained.

Bausch & Lomb Catalog

Of interest to the engineer and designer is a new catalog recently issued by Bausch & Lomb Optical Co. This catalog, *Optical Parts*, has been published to save the customers' time in important developmental work by eliminating much of the correspondence previously required for these highly precise optical parts. Engineers and designers need the type of information contained in this catalog, it is stated. If they can consult the catalog in the initial stages of instrument development, they can often incorporate standard optical parts into their design and avoid the higher cost of "tailor made" optics. Copies of the catalog may be obtained free of charge by writing on company letterhead to Bausch & Lomb Optical Co., Industrial Sales Department, Rochester, N. Y.

Specifications Folder

A new Standard Specifications Folder containing complete data on Towmotor fork lift trucks, tractors and electric pallet trucks, has just been made available by Towmotor Corp., Cleveland, Ohio. The 4-page, 8½ by 11-inch folder gives such information as capacities, load centers, lift heights, weights, dimensions, turning radii, speeds of travel, etc. Easy to read and study, the folder is an excellent example of conciseness in giving factual information which busy executives need to see when thinking about equipment to solve their materials handling problems. A copy of the Standards Specifications Folder may be obtained by writing Towmotor Corp., Cleveland 10, Ohio.

Instrumentation Data Sheet

Currently available from Brown Instruments Division of Minneapolis-Honeywell Regulator Co. is the firm's new instrumentation data sheet N. 8. 1-26, "Instrumentation for Yarn Conditioning and Twist Setting." The data sheet outlines a highly successful system of control for twist setting. Copies may be obtained by writing to Minneapolis-Honeywell Regulator Co., Brown Instruments Division, Station 40, Wayne and Windrim Avenues, Philadelphia 44, Pa.

New Cochrane Bulletin

Cochrane Corp., Philadelphia, Pa., manufacturer of water conditioning equipment and steam specialties has issued a new publication (No. 4530) on Cochrane hydrogen zeolite (cation exchange) softeners. This is a 16-page bulletin giving complete description of the process and the field of application, showing the advantage of hydrogen zeolite softening and its relation to the

MAY • 1951

CARD CLOTHING NEWS
and views

WRITTEN MONTHLY BY E. A. SNAPE, JR., PRESIDENT **Benjamin Booth Company** PHILA. PA.

STRIP-O-MATIC*

Provides *A SURE WAY* TO *CARD BETTER* - - -
At Savings In *TIME* and *MAN HOURS*

The heat is on today to conserve wherever possible. STRIP-O-MATIC Card Clothing offers definite savings in time and man hours, with the further result: a saving in costs—which makes it a "must" in your production and conservation program.

STRIP-O-MATIC cuts stripping to a minimum. This automatically reduces "down time," makes it instead "production time," thus you are able to release the strip crew for other jobs, so that you save labor. And, because STRIP-O-MATIC cards better, resulting in less waste, you realize profits from better and greater production.

Pause an instant and think of all the card clothing on the market today. Nowhere outside of the revolutionary STRIP-O-MATIC can you obtain a card clothing which offers so many new features producing such savings.

Representative
OLIVER D. LANDIS, INC.
718 Queens Road Charlotte 7, N. C.
Exclusive Sales Agent (Cotton Division) for Virginia, North Carolina, South Carolina

For this reason, whatever card clothing you are now using, if it isn't STRIP-O-MATIC, you aren't realizing the profits you should.

The only way to know what STRIP-O-MATIC will do for YOU is to try it. How about it? For full details, write today.

Sincerely,
E. A. Snape, Jr.,
E A Snape Jr
President,
Benjamin Booth Company
Allegheny Ave. and Janney St.,
Philadelphia, Pa.

*Pat. and Reg. in U. S. A.

To the Man Who Buys CASTERS

Compare the WIL-MAT Caster with any other. Here are some of its advantages.

30% to 40% More Tread
This heavy drawn sheet steel tread means far longer service and reduced costs.

Smooth-as-Silk Tread
Will not harm maple floors. Its curved chip-proof bevel cannot wear to a sharp edge.

Grease-Resist Surface
Will not pick up grease, oil, or grime and track it over your floors.

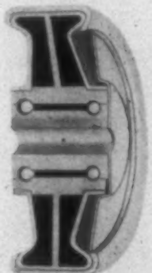
Super-Smooth Action
Heavy steel ball bearings, in thrust-type hardened natural raceways, make this the smoothest rolling caster on the market.

Great Strength
Heavy and accurately machined parts give the WIL-MAT Caster exceptional strength as well as smooth action.

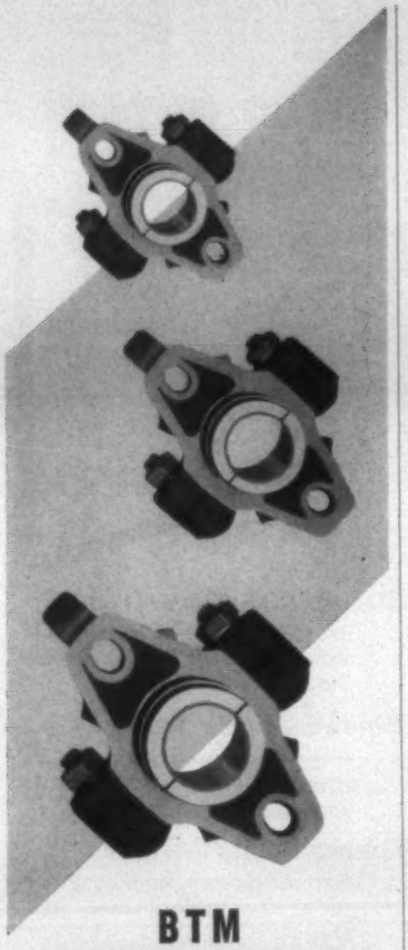
Compare the WIL-MAT Caster with any other and you, too, will join the many mills which are now using WIL-MATS exclusively.

And They Won't Clog Up

WIL-MAT Ball Bearing Swivel and Rigid Casters



Wilkin & Matthews
CHARLOTTE, NORTH CAROLINA



BTM

PICK CAM HUBS

Guaranteed never-to-break in service, BTM Pick Cam Hubs are made of malleable iron, accurately machined so that all surfaces are concentric.

Bored with shims that give a "clamping" fit when installed on shafts. Completely eliminates loom stoppage from pick cam hub failure.

BTM Pick Cam Hubs are made for all standard Draper looms. Order from stock.

BAHAN
TEXTILE MACHINERY CO.
GREENVILLE, S.C.

sodium zeolite softening process. The hydrogen zeolite cation exchange process is relatively new (1935) while the sodium zeolite process has been in use in water softening since 1910. This Cochrane hydrogen zeolite softener bulletin is an exhaustive explanation not only of the process, but of the zeolites themselves and the details of the equipment used in the process.

Industrial Ovens Booklet

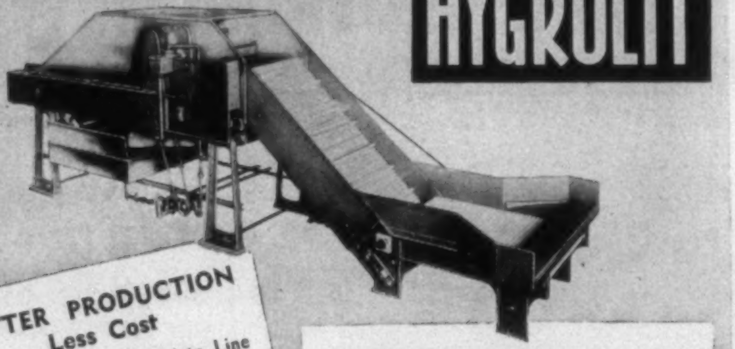
"Continuous Automatic Processing Equipment," a 16-page, 8½ by 11-inch booklet recently made available by Industrial Ovens, Inc., 13825 Triskett Road, Cleveland, Ohio, presents a timely and practical exposition of some of the more advanced machine design elements involved in continuous coating equipment for such web materials as textiles, paper, films and foils, and strand materials such as wires, cables and synthetic monofilaments. It is a clearly written, easy-to-follow discussion of various types of complete coating systems and the many different component elements which they embrace. Units for web coating discussed in detail include roller coaters, unwind stands, cooling drums, pull roll stands, drying machines, etc. Similar detailed treatment is given to the component units of both dip and extrusion coating systems of strand materials —letoffs, dip coating pot arrangements, extrusion machines, propelling stands, constant tensioning stands, and winding machines. The booklet utilizes to good advantage some 50 drawings and photographs keyed to the text. Copies may be obtained without charge by writing to Industrial Ovens, Inc.

Taylor Anniversary

The year 1951 marks the 100th birthday of the Taylor Instrument Companies of Rochester, N. Y. Starting as a tiny partnership for making household thermometers and barometers, the business of Kendall & Taylor showed an inventory in 1851 listing total assets at $919, of which $600 was for "knowledge of the business." The company has since become a multi-million dollar corporation manufacturing some 8,000 variations of its basic products and distributing them all over the world.

George Taylor came from Stoddard, New Hampshire, and opened his business at the age of 19. His original journal, now in the company's archives, reveals him as a meticulous young man who made his entries in shillings and pence after the fashion of New Englanders who kept the old British monetary system long after the rest of the country had changed to dollars and cents.

Although instruments for consumer use comprise the oldest part of the present Taylor line, by far the largest is the industrial instrument division, which began in 1896 with the acquisition of a firm making mercury-in-glass industrial thermometers for use on such batch processes as brewing, varnish making and printing ink. In 1905, the first controllers were added to the industrial line, an event which marked a highly significant turning point in the flowering of continuous



More than 500 MILLION pounds of yarn conditioned annually-with HYGROLIT

BETTER PRODUCTION
Less Cost
Guaranteed by a Complete Line of HYGROLIT Conditioning Liquids

1—perfect twist setting
2—adequate moisture regain
3—proper yarn lubrication
4—mildew prevention
5—rust protection
6—neither oxydation nor staining

A COMPLETE LINE
of HYGROLIT machines assures the correct type and size of conditioning machine for the individual requirements of a mill. (Bobbins, Tubes, Cones, Skeins and Fabrics.)
WITHOUT COST
we will study your own conditioning problems and submit recommendations based upon many years of specialized experience.
Write for illustrated bulletin 901 - B.

KMC **KEARNY MANUFACTURING CO., INC.**
Kearny, N. J. — Greenville, S. C.
Authorized agents all over the world

industrial processing in this country. The continuous processing of chemicals, photographic film, textiles, foods, milk, plastics and other synthetics, petroleum, paper, etc., now require such involved and precise control that to return to hand methods would literally bring the American economy to a standstill until the old-fashioned methods of batch processing with its hand operated valves could be installed. Quality, uniformity and manufacturing costs would also revert to the standards of a quarter of a century ago, and many products could not be made at all.

Ever since it made a contract with the U. S. Navy just prior to the Spanish-American War, Taylor has been contributing significantly to the defense of the nation. During World War II such vital processes as synthetic rubber and high octane gasoline couldn't have met production schedules without the kinds of control equipment made by Taylor.

Taylor's record in the design and development of industrial instruments is such that the company was chosen prime contractor in the development, design and manufacture of all process control instruments for the gaseous diffusion plant of the Atomic Bomb Project at Oak Ridge, Tenn. Many carloads of these unbelievably precise instruments control the processes of that plant.

The tiny thermometer company of 1851 is now the largest instrument company of its kind in the world, serving the home, the medical profession and industry with instruments to indicate, record or control temperature, pressure, flow, force, liquid level and humidity.

New Booklet On Dynel

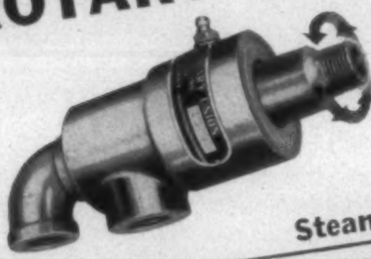
Dynel, the new, man-made staple fiber introduced by Carbide & Carbon Chemicals Co., a division of Union Carbide & Carbon Corp., is described in a colorful, eight-page pamphlet. The pamphlet is divided into two parts. The first deals with the physical and chemical properties of dynel fiber and the second discusses these properties in terms of their value in fabrics. Properties covered include tenacity; elongation; stiffness; toughness; flammability; moisture regain; resistance to water, chemicals, insects and mildew; and light stability. Information on price and standard sizes and lengths of dynel staple is also included. Copies may be obtained by writing Carbide & Carbon Chemicals Co., Room 308, 30 East 42nd Street, New York 17, N. Y.

ROTARY UNIONS
(TRADE NAME)
Pipe Size
¼" thru 3"

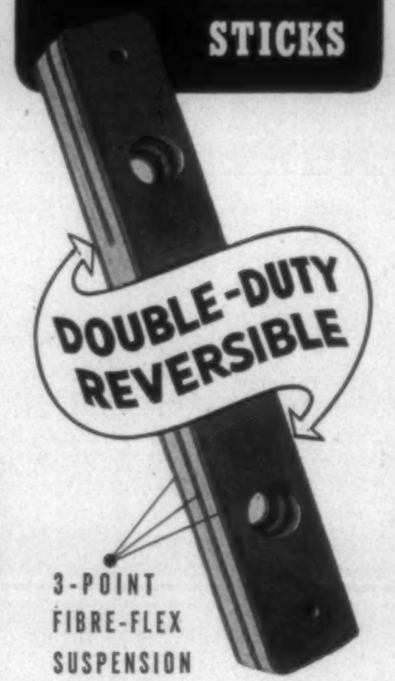
A Revolving Steam Connection

These revolving steam connections require practically no maintenance for months on end . . . no tightening, no repairs, no parts . . . and cut mechanics' time way down. They save on steam and materials and cut power consumption by 30% to 80%. Positive sealing at steam pressures up to 200 PSI. Ball bearing construction permits high speeds and prevents stretching of warps. Other exclusive features prevent operating failures and reduce down-time.
Write today for Catalog 600-B and learn how you can save money and increase production by using ROTARY UNIONS on your slashers, dry cans, calenders, printing and coating machines.

"WHERE Good Connections COUNT"
PERFECTING SERVICE COMPANY
332 Atando Ave. (Home Office and Factory) Charlotte, N. C.
Offices in Jersey City — Chicago — Philadelphia — Cleveland — Pawtucket, R. I.



NORRIS
Super-Stroke
SWEEP
STICKS



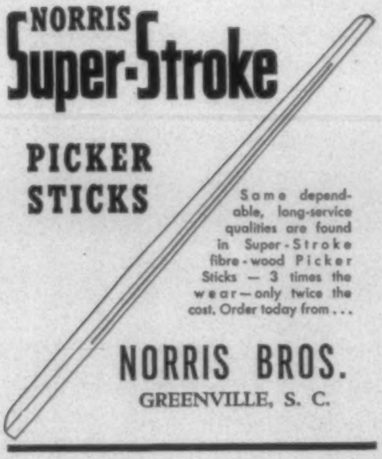
3-POINT
FIBRE-FLEX
SUSPENSION

The tough flexibility of vulcanized fibre combined with ski-quality hickory make the Norris Super-Stroke Sweep Stick a bear for wear —and the unique reversible feature doubles its life again! Heat and pressure bonded fibre sides and inserts guaranteed never to separate from the wood.

NORRIS
Super-Stroke
PICKER
STICKS

Same dependable, long-service qualities are found in Super-Stroke fibre-wood Picker Sticks — 3 times the wear—only twice the cost. Order today from . . .

NORRIS BROS.
GREENVILLE, S. C.



Set Date For Southern Textile Exposition

October 6-11, 1952, has been chosen as the dates for the 17th Southern Textile Exposition, Greenville, S. C., according to J. H. Woodside, president of Textile Hall Corp. The office of the exposition, under the management of Miss Bertha M. Green, secretary, is in Textile Hall, 322 West Washington Street, Greenville. The prospectus for the coming show is now being prepared.

Survey Shows Progress Of Man-Made Fibers

The progress of man-made fibers in the competition for textile markets is clearly defined in a recent study of textile fiber end-use published by the Textile Economics Bureau, Inc. In a special supplement of the *Rayon Organon,* its statistical bulletin, the bureau presents 1949 data on 131 end-uses of five textile fibers, as prepared by E. I. du Pont de Nemours & Co., Inc., and matches them against an earlier study made by the bureau covering 1937.

In the 13-year span between the two studies, according to the *Organon* supplement, man-made fibers account for much of the increased fiber consumption over the period. The other fibers as a group, namely, cotton, wool, silk, and linen, have shown smaller increases, especially on a percentage basis.

Consumption of all fibers in the period increased 1,024,000,000 pounds or 22 per cent. But 743,000,000 pounds of this increase, or 73 per cent, was in man-made fibers as against 281,000,000 pounds or 27 per cent in all other fibers. In all the major divisions of the textile industry, the percentage increase in use of the man-made fibers was notably greater than the other fibers. Moreover, the actual poundage increase was greater for the man-made in all divisions except household uses and exports. In the category, industrial uses, there was a group decline in the use of the other fibers.

The 1950 and current 1951 use of all fibers has been swollen by defense mobilization and the Korean war, according to the *Organon* supplement. But looking forward to, say, 1954, there can be little doubt that the capacity of the man-made fiber producing industry will be in excess of 2,000,000,000 pounds per year, a figure one-third greater than the actual 1950 consumption of these fibers or 1,496,000,000 pounds.

"The current new or increasing penetration of rayon and the other man-made fibers," the *Organon* supplement states, "in a wide variety of uses ranging from such items as men's clothing on to carpets, automobile tires and such has been activated not only by the superior performance of the man-made fibers in certain uses, but also by the inflated prices of cotton, wool, and silk. What the situation will be three to five years from now, no one can tell. But it is a demonstrable fact in the history of the man-made fibers that once a product is made of one of these fibers under competitive conditions of style, quality and price, that market not only is usually held by the man-made fiber but its consumption therein is subsequently increased." Further, it appears likely that the man-made fibers will be produced and consumed typically at capacity levels regardless of the trend of total fiber consumption or per capita consumption.

The survey covers fibers consumed in the production of textile products in the United States, but not the net fiber consumed by final domestic consumers of textile goods. While the imports of raw materials (fiber and yarn) are included in the study because they are subsequently processed by United States mills, the poundage of semi-manufactured and manufactured textiles imported is not included. Data on exports of fabricated goods such as wearing apparel and hosiery are included. The study excludes certain soft fibers such as hemp and jute as well as hard fibers such as abaca (Manila fiber), sisal, henequen, New Zealand fiber, istle, maguey, etc., the aggregate consumption of which is estimated at well over 1,000,000,000 pounds annually. Also excluded are textile fiber or fabric replacement items such as shower curtains and baby panties of vinyl or other film, paper draperies, paper bags, etc.

The year 1949 was selected by the Du Pont Co. because the data for that year were better than some others and also because 1949 represented a conservative appraisal of post-war fiber consumption; earlier post-war years' data reflected to some extent consumption abnormalities arising out of the war itself. The rather sharp but short textile recession in 1949 not only represented a full post-war correction, but also demonstrated that there was little like-

HIGH QUALITY COMBED and CARDED KNITTING and WEAVING YARNS

BEAMS, CONES TUBES, WARPS

BFG 1870 B.F.Goodrich

MARTHA MILLS DIVISION, Silvertown, Georgia

LARGE PRODUCTION . . . UNIFORM QUALITY . . . LATEST MACHINERY

• SOUTHERN SALES AGENTS: **Walter T. Forbes Co.** PHONE L. D. 28, CHATTANOOGA, TENN.

lihood of a retreat of total textile fiber consumption to prewar levels.

While the grand total mill consumption of the fibers under study increased 23 per cent from 1937 to 1949, the individual fibers showed notable differences from this average. Cotton consumption was up five per cent, wool increased 27 per cent, silk declined 92 per cent, and linen was off 46 per cent. The man-made fibers, on the other hand, were up 237 per cent and thus were nearly 3½ times as large in 1949 as they were in 1937.

Over-all fiber consumption increased 22 per cent; but by end-use groups, there were sizable divergences from the average. Consumption of fiber for men's and boys' wear increased 11 per cent, women's, misses', children's and infants' wear 27 per cent, household uses 25 per cent, industrial and miscellaneous uses two per cent, and exports 377 per cent.

Fiber consumption breakdowns in the men's and boys' wear group reveal that cotton increased six per cent, wool declined six per cent, and man-made fiber consumption was up 179 per cent. In this group in 1937, cotton made up 76 per cent of the total fiber consumed, wool 19 per cent and man-made fibers four per cent; in 1949 the percentages were cotton 73 per cent, wool 16 per cent, and man-made fibers 11 per cent.

Cotton lost ground in the item "suits, separate coats and trousers," and the *Organon* supplement recalls the practical disappearance of men's and boys' cotton wash suits. All other important cotton items, except jackets and shirts, showed population-type increases, attuned to the fact that population of the United States increased 16 per cent from 1937 to 1949. In the jacket and shirt category, increases were larger while for work clothing, knit underwear and work gloves, the consumption of cotton declined moderately.

One-half of the total wool consumption in men's wear in 1949 was in men's and boys' suits and separate coats and trousers, but this item showed practically no poundage change from 1937 to 1949. The important element of the weight of the fabric used in production of men's and boys' suits, as well as the inroads of the man-made fibers, is clearly shown by these data. Growing popularity of interlinings, including the zip-out, brought the use of wool up in the lining fabric category.

In overcoats and topcoats, the trend from men's heavy overcoats to topcoats undoubtedly is reflected in the decline of 31 per cent in the amount of wool consumed. Decline in the use of melton-type jackets and increased use of the windbreaker-type jacket brought about a relatively small increase in the use of wool in the jacket classification. The great increase in the use of man-made fibers in men's apparel has come principally in the item "suits and separate coats and trousers," in lining fabrics, and in sport and utility shirts. These three items account for about 80 per cent of consumption of man-made fibers in men's and boys' apparel.

Over-all fiber consumption increased 27 per cent in the women's, misses', children's and infants' apparel category, according to the *Organon* supplement. By individual fibers, however, a very different story is told. Cotton consumption declined five per cent, wool increased 100 per cent and man-made fibers went up 89 per cent, while silk and linen declined 91 per cent. In 1937, the percentage of total consumption by fiber was cotton 57 per cent, wool 13 per cent,

A New

SPRAY-APPLICATION TECHNIQUE

for

TEXTILE PROCESS COMPOUNDS

MINOTINTS

Oil-base fugitive tints for all synthetic and natural fibers.
Identification—Lubrication—Conditioning

RAYON OILS SS BASE OIL
TINTINOLS MINEROL
LYNOL MEON
BRETON OILS FOR WOOL

Accurate trouble-free application of spraying oils and tints by the new pressure method which eliminates pumps and moving parts. Simplification is progress and ours is backed by over 75 years' experience.

INQUIRIES INVITED

BORNE, SCRYMSER COMPANY

Offices and Works
ELIZABETH, N. J.

Established 1874

Southern Warehouse
CHARLOTTE, N. C.

silk six per cent, and man-made fibers 24 per cent. In 1949 it had changed as follows: cotton 43 per cent, wool 20 per cent, silk nominal, and man-made fibers 37 per cent.

Sizable increases in cotton were registered for street and formal dresses; blouses, waists and shirts; hosiery; and children's and infants' dresses and hosiery. Other children's and infants' items undoubtedly would show good increases if comparable 1937 data detail were available. Declines in cotton consumption occurred in women's and misses' house dresses, piece goods over-the-counter, nightwear, and panties, vests and step-ins. In the majority of the cases where cotton declines are noted, there has been a corresponding increase in the consumption of man-made fibers.

All important items in the women's and misses' schedule showed an increase in wool consumption, with the big gains in coats at 47 per cent, knit suits, jackets, skirts and dresses at 157 per cent, and piece goods over-the-counter at seven times as much. Decline in silk from 50,900,000 pounds in 1937 to only 2,900,000 pounds in 1949, a loss of 94 per cent, was due to lessened consumption in all categories with the outstanding loss in hosiery from 30,500,000 pounds to 200,000 pounds.

Consumption of man-made fiber in women's and misses' and children's and infants' apparel almost doubled in the period under study. Principal increases were in woven and knit jackets, skirts and suits, street and house dresses, hosiery, piece goods over-the-counter, blouses, waists and shirts, woven slips and petticoats and lining fabrics.

In the study of fibers for household uses, which also includes items used in institutions, hotels, and trains, the *Organon* supplement points out that the increased number of dwellings over the period, the larger number of units built in 1949 as against 1937, and greater consumer purchasing power are all reflected in the data presented. It should be recalled also that, in times of financial stringency, household textiles undoubtedly are one of the most easily postponed types of consumer purchases.

Over-all increase in fiber consumption for household uses from 1937 to 1949 was 25 per cent. Increases by the individual fibers were cotton 19 per cent, wool 35 per cent, and man-made fibers 166 per cent. Cotton items showing a greater than average increase were bedspreads with 360 per cent, sheets and pillowcases 29 per cent, tablecloths and napkins 76 per cent, and floor coverings 50 per cent. Actual decline in cotton consumption was shown in comforters and quilts, blankets and blanketings, and oil cloth.

There were only three divisions in which wool was used and all of them showed increases as follows: blankets and blanketings seven per cent, floor coverings 38 per cent, and upholstery and draperies 97 per cent. In man-made fibers the principal increases were in blankets and blanketings, carpets and rugs, upholstery and draperies, and curtains.

In industrial and miscellaneous uses fiber consumption increased two per cent. Cotton showed a 19 per cent loss, wool a three per cent gain, and man-made fibers a 929 per cent gain. The striking increase of the latter fiber was mainly due, of course, to the penetration of the tire cord and fabric market by high tenacity viscose rayon yarns.

Chemstrand Corp. To Build Nylon Plant

The annual stockholders meeting of the American Viscose Corp. was told that the Chemstrand Corp., of which it is half owner, has completed plans for building a nylon producing plant, which may be done in 1954. The location has been set, but John G. Jackson, general counsel and a director of the company, refused to divulge the location. Costs of the new plant and its equipment, as worked out with Du Pont engineers, have been estimated. To cover initial costs for this and for the construction of the Acrilan, the Chemstrand acrylic fiber plant in Decatur, Ala., the stockholders approved a $110,000,000 loan from a group of insurance companies.

President and Chairman Frank H. Reichel also disclosed that total net sales for the first quarter of this year were $72,864,000 as compared with $61,807,000 for the same period of last year. Net earnings were $6,330,000 as compared with $7,908,000 for the first quarter of 1950. Mr. Jackson also reported that American Viscose has not felt a slowing down in demands for its products, but may feel it later. In 1951, the company has allocated $6,000,000 for research. Re-elected directors were president and chairman Frank H. Reichel; vice-presidents Harry L. Dalton and Frank H. Griffin; secretary and treasurer, William H. Brown; Henry C. Alexander, Henry H. Bitler, S. G. Dixon, William Ewing, George S. Hills, Mr. Jackson, Charles S. McCain and Edward L. Shea.

A.A.T.C.C. President Visiting Europe

C. Norris Rabold, president of the American Association of Textile Chemists and Colorists and director of chemical research and development, Erwin Mills, Inc., Cooleemee, N. C., left May 18 for England. In addition to representing the association and his company, Mr. Rabold also repre-

Carolina LOOM REED CO.

"Made their way by the way they're made"

A Carolina Reed

Manufacturers of
ALL METAL
and
PITCH BAND
REEDS

P. O. Box 1536 GREENSBORO, N. C. Phone 2-3037

sented the Southern Textile Association at the Textile Institute Conference at Brighton, England, May 20-26, and he will represent it again at the meetings of the International Organization for Standardization to be held June 3-9 in Bournemouth, England.

Mr. Rabold was accompanied by Leonard S. Little, chairman of the general research committee and chairman of the executive committee on research of the A.A.T.C.C., and William Appel, chief, textile section, National Bureau of Standards. The three named are part of technical committee No. 38 of the American Standards Association and as members of this committee are representing the United States at the International Organization for Standardization Conference and will participate in the discussions to establish international standards for textiles. Following the meetings Mr. Rabold visited the Imperial Chemical Industries, Ltd., at Manchester.

After his trip to England, Mr. Rabold will tour the Continent visiting various dyeing and finishing plants, dye companies, dye manufacturers, and attend meetings in France, Belgium, Holland, Denmark, Sweden, the German-American Zone, and Switzerland. He will address various textile organizations throughout his trip, and in Switzerland he will present data and take an active part in a meeting of the Swiss colorfastness committee. He will be a guest of the Institute Textile de France in Paris, and the Swiss Federal Institute of Technology in Zurich. Mr. Rabold will return to the United States June 25.

Leonard S. Little, chairman of the executive committee on research, announces that the association's research program will have to be expanded if it is to meet its responsibilities to the textile finishing industry, particularly since the government has increased its procurement program. A larger sum will have to be provided in the budget to cover the increased activity.

The wash fastness committee, having completed the development of a new test for commercial launderability, is proceeding to the consideration of tests for hand washing, the washing of wool, the commercial laundering with chlorine present of shirtings, etc., and the commercial laundering of synthetic fabrics.

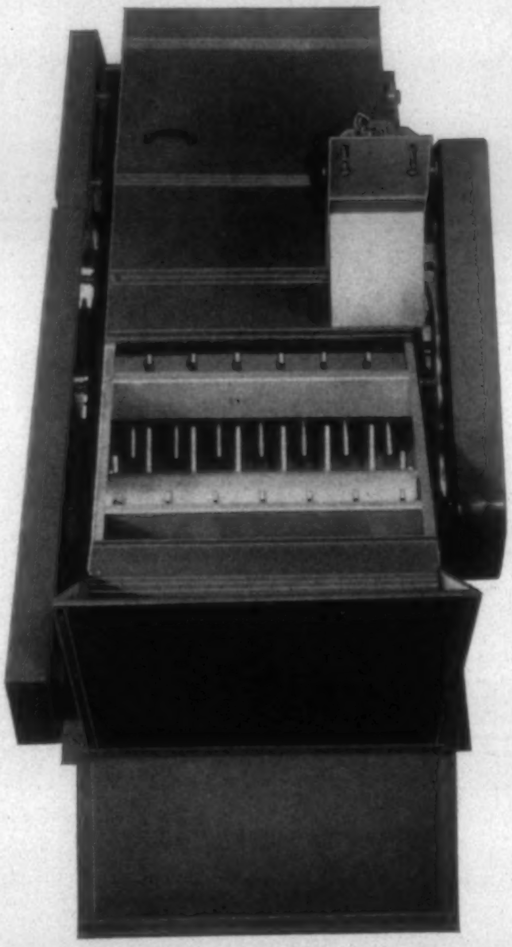
Dr. H. E. Hager of the committee on flammability, referring to the new A.A.T.C.C. instrument for testing flammability of fabrics, announces tentative classifications of fabrics which have been tested in the equipment. (1) Safe fabrics which require more than seven seconds to burn in the official test. (2) Intermediate fabrics which burn between four and seven seconds. (3) Dangerous fabrics which burn in less than four seconds.

The A.A.T.C.C. Accelerotor, which imparts controlled abrasion to textile samples, is now in production. In about another month it should be available from Atlas Electric Devices, Chicago, Ill.

American Textile Experts Visit Britain

The technical assistance program of the Economic Cooperation Administration, which has sponsored the study trips in this country of hundreds of industry specialists from Marshall Plan countries, went into reverse this month for the first time. The reverse twist was supplied as a team

THE "SUPER CLEANER"
GETS THE DIRT!



The "SUPER CLEANER" embodies the best features of old type cleaners with many improvements that make this the most efficient cleaner on the market.

Steel constructed . . . ball bearing . . . each bearing enclosed in a special dirt and dust proof housing . . . pulleys completely covered . . . parts easily accessible . . . flexible grid bars reduce fire hazard and are adjustable . . . ALL PARTS DYNAMICALLY AND STATICALLY BALANCED BY THE BEAR DYNAMIC METHODS . . . air-free . . . built-in sprayer canopy confines extinguisher spray to fire area.

The "SUPER CLEANER" does an excellent blooming as well as cleaning job, and may be used singly or in tandem up to six machines.

It is the solution to the problem of today's dirt-laden cotton. Complete details on request.

Manufactured by

GASTONIA TEXTILE MACHINERY CO.
GASTONIA, NORTH CAROLINA

of American cotton textile experts departed on May 16 for the United Kingdom to study British textile manufacturing methods.

The E.C.A. program has brought some 500 groups, including teams of up to 12 or more as well as one-man missions, to the United States. They have studied the industrial and scientific know-how which has given this country its high productivity and output. This time—under an invitation from the members of a British cotton team which visited the United States on an E.C.A.-sponsored study trip two years ago—the flow of know-how is in the opposite direction. The group of nine U. S. cotton experts will include four men representing management, two representing labor and three technicians. The same three segments of any given industry are customarily represented on European teams which come to this country in quest of technical assistance.

The history of this exchange of technical information between the American and British cotton textile industries began in March, 1944, when a cotton textile mission from the United Kingdom made a study here under the leadership of Sir Frank Platt, cotton controller of the British Ministry of Supply. Members of the group, who were primarily interested in labor productivity measurements, were amazed at what they found: British production per man 18 to 49 per cent lower than American in the spinning section of the industry; 80 to 85 per cent lower in the winding section; 79 to 89 per cent lower in the beaming section, and 56 to 67 per cent lower in the weaving section. A cotton textile "working party" in the United Kingdom later surveyed their own industry in the light of the Platt report and made further recommendations to increase the industry's productivity and general efficiency. They stressed the importance of applying more scientific methods to their industry.

In 1949, a three-part team from the United Kingdom studied textile mills and research laboratories in New England and the South. The reports of this team, which included men from the cotton spinning, weaving and yarn doubling sections of the industry, emphasized not only better machinery, but also new techniques, better working conditions, changes in organization and labor relations and other factors to increase productivity. The trade and labor associations whose members came to the United States in 1949 and who invited the American cotton industry to come and see them, have arranged a program of mill and textile institute visits for the 11-man team of Americans. While there, the United States cotton men will discuss mutual problems with their British counterparts, examine and discuss recent British developments in research and machinery with both textile men and machinery manufacturers there, and appraise the progress made by the British as a result of their study trip over here. The group will prepare a report of their findings, observations and recommendations for general distribution both here and in England.

Their tentative itinerary calls for the first three days to be spent in London in orientation sessions and in visiting the principal textile and textile machinery displays at the Festival of Britain exhibition. The group will then travel to Manchester to begin plant visits in Lancashire, with return to London scheduled about June 12 or 13. They are expected to return on the Queen Elizabeth, departing from Southampton on June 15. While in England, the team members will be guests of the United Kingdom cotton

HOUGHTON TOP COMPANY

Dealers in Wool Tops of All Grades
Suitable for Blends With Cotton and Other Fibers

houghton
TOP COMPANY

253 Summer St.
BOSTON, MASS.

Write or Phone Our Sou. Representative
JAMES E. TAYLOR & CO.
Telephone 3-3692 Long Distance 936
Liberty Life Bldg. Charlotte, N. C.

PEGGED and GLUED BRISTLES Stay Put!

LONGER LIFE—Spiral card brushes, refilled the Gastonia way, last from 10 to 15 years, compared with 2 or 3 years when staples are used—for STAPLES WILL NOT STAY PUT IN SOFT WOOD. Gastonia first dips the bristles and fiber in glue, then they are permanently pegged in.

BETTER FINISH—To prevent lint from collecting on rolls, Gastonia paints them with high-grade bobbin enamel, which dries to a hard, glossy finish. Brushes can be refilled and returned in two days. Freight is paid one way.

J. T. HARRELL, PRES. AND MGR.

GASTONIA BRUSH COMPANY
Phone 1708 **GASTONIA, N. C.**

★ **CHAPMAN**
ELECTRIC NEUTRALIZER CO.
PORTLAND 6, MAINE

Write for
Bulletins on
CARDS,
DRAWING FRAMES,
PERALTAS,
FOLDERS, etc.
ALSO
SPECIAL
APPLICATIONS

Specialists in the Elimination of . . .
STATIC
SAFELY · INSTANTLY

You'll Save TIME In Your Plant With
THE KELLOGG M-5
SELECT-O-PHONE SYSTEM

Available at all hours of night or day, every minute of the year, without a switchboard operator.
Automatic, man-to-man service, not hampered by manual supervision.
Provides for secret conversations.

We Install and Maintain Under Contract.

SOUTHEASTERN SOUND & ELECTRONIC CORP.
105 Cleveland St. **Greenville, S. C.**

spinning, doubling and weaving industries and labor groups, which will provide all incidentals.

The British organizations which will play host to the Americans are the Cotton Spinners' and Manufacturers' Association, Ltd., the Federation of Master Cotton Spinners' Association, Ltd., the Cotton Yarn Doublers' Association, the North Counties Textile Trades Federation, the Amalgamated Association of Card, Blowing and Ring Room Operatives and the Amalgamated Association of Operative Spinners and Twiners.

The American experts who will travel to the United Kingdom are: Management—Council C. Dawson, manager, Cramerton Division, Burlington Mills, Cramerton, N. C.; Jesse B. Hart, treasurer, Joanna Cotton Mills (Joanna Western Mills Co.), Joanna, S. C.; Allen E. Gant, secretary, Glen Raven Cotton Mills and Glen Raven Silk Mills, and president, Glen Raven Knitting Mills, Burlington, N. C., and Eugene E. Stone, III, president, Stone Mfg. Co., Greenville, S. C. Labor—Hugh D. Moseley, vice-president, United Textile Workers of America (AFL), Winnsboro, S. C., and John W. LeFevre, engineer, Local 753, UTWA (AFL), New York Mills, N. Y. Technicians—Chandler Robbins, II, assistant to the president for production and process development, Bates Mfg. Co., Lewiston, Me.; Horace L. Pratt, laboratory director, Mt. Vernon-Woodbury Mills, Inc., West Columbia, S. C., and George H. Dunlap, technical consultant, School of Textiles at North Carolina State College, Raleigh, N. C.

Book Discusses Plant Maintenance Problems

An extensive discussion of recent developments in problems of plant maintenance, "Techniques of Plant Maintenance—1951," has just been published by Clapp & Poliak, Inc., the management of the Plant Maintenance Show held in Cleveland last January. The new volume is a companion to "Techniques of Plant Maintenance—1950," and contains the proceedings of the Plant Maintenance Conference held in conjunction with the show.

The new volume, however, is printed and bound instead of mimeographed. Last year's book went through two editions and was out-of-print two weeks after its publication had been announced.

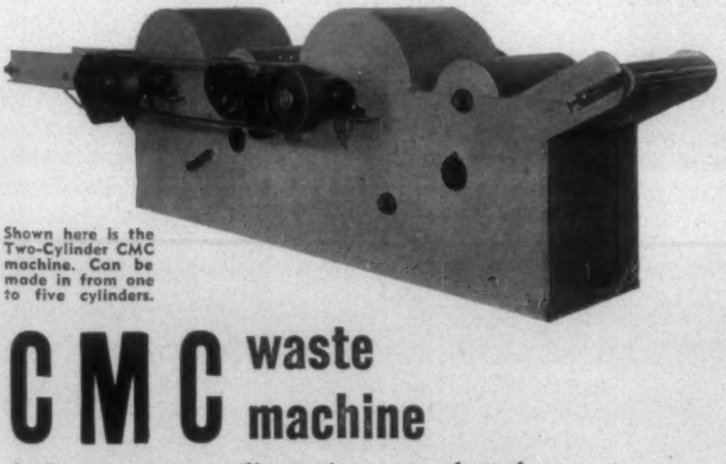
More than 40 nationally known experts in the field of maintenance contributed papers. The book contains 228 pages, 8½ by 11 inches, and is illustrated with 48 tables, diagrams, illustrations, graphs and charts. One of the features is a series of questions and answers submitted after each of the 12 sessions. In all, 544 questions put to the speakers are answered. The book is bound with cloth over board and has gold-stamped titles. It is available from Clapp & Poliak, Inc., 341 Madison Ave., New York 17, N. Y., postpaid for $6.

Subjects covered include preventive maintenance, inspection procedures and frequencies, records and reports, training personnel for maintenance, organization and management for maintenance, maintenance costs, incentive payment of maintenance workers, planning and scheduling maintenance operations, applied lubrication in industry, housekeeping, painting and decorating, floors and standards of sanitation. Additionally, there are specialized discussions on maintenance of electrical equipment, power plant and heating equipment, problems of the small plant, selection and maintenance of lighting equipment, maintenance in chemical plants, in paper and paper products plants, in food processing plants, and in metal working plants.

Georgia Safety Contest Winners Announced

Winners of the second annual textile safety contest conducted by the Cotton Manufacturers Association of Georgia have been announced. Eighty-three mills with the over-all employment of 61,968 took part. N. S. Turner, of Covington, Ga., was chairman of the contest. Five leading mills in the competition, whose employees worked a combined total of 3,855,003 man-hours, completed the contest period without a lost-time accident. All ten winners recorded only 23 lost-time accidents during 16,259,258 man-hours.

Plaques were presented to the 1950-51 winners at the cotton manufacturers' convention in Daytona Beach, Fla., May 17-19. The winners: Group A (less than 250 workers)



Shown here is the Two-Cylinder CMC machine. Can be made in from one to five cylinders.

CMC waste machine

A demonstration will convince you that the CMC Waste Machine is the best you can buy.

This is the machine which, for the first time, eliminated fire hazards by doing away with suction fans and waste pits. It also greatly reduced fiber damage by preventing blowback by means of controlled air pressure.

The CMC is easily installed . . . requires no dust pipes. It is compact . . . all parts are easily accessible . . . and it can be quickly adjusted to process different length staples and synthetic waste.

We will gladly process samples of your waste and return them for your inspection.

Direct Factory Representatives
for all Types of Pin Lagging including Waste
Machine, Shoddy Picker, Carding Beater

CAROLINA MACHINERY CO., INC. Morris Field
Charlotte, N. C.

A TRIPLE SERVICE

TEXTILE COST SPECIALISTS

INDUSTRIAL ENGINEERS

CERTIFIED PUBLIC ACCOUNTANTS

MOORE & THIES
CHARLOTTE, N. C.
Established 1927

CARECO
ONE-PIECE
FURNACE LINING
Reg U S TRADE MARK Pat Off
For
REPAIRING
or
LINING

LONGER LASTING BOILER FURNACES

A PLASTIC LINING USED IN PLACE OF FIRE BRICK

"Boiler furnaces lined with CARECO last two to four times longer than those lined with fire brick. Write for quotation."

CAROLINA REFRACTORIES CO.
Hartsville, S. C.

Charlab
FUGITIVE TINTS
WATER TYPE—Does Not Overwet Stock
OIL TYPE—Conditions and Identifies;
Reduces Fly

• • •

Write or Phone
Charlotte Chemical Laboratories, Inc.
Charlotte, N. C.
Our 33rd Year

MOORESVILLE IRON WORKS
P. O. Box 246 MOORESVILLE, N. C. Phone 49

CASTINGS
Grey Iron, Bronze and Aluminum

TEXTILE MACHINERY AND PARTS

Loom Beams Our Specialty. All metal Loom Beams with adjustable or stationary heads, also all types of Beams with wood barrels. Immediate delivery on Motor Pinions, Motor Pulleys, Sheave Pulleys, cut Sprockets, Pick Wheels.

Special Machines Quoted On Upon Request

—First, Clark Thread Co., Ackworth plant, no accidents. Group B (250 to 499 workers)—First, Chicopee Mfg. Corp., Lumite division at Cornelia, no accidents. Group C (500 to 749 workers)—First, Crompton-Highlands Mills, Inc., Griffin, no accidents. Group D (750 to 999 workers) —First, Bibb Mfg. Co., Porterdale mill, no accidents. Group E (1,000 workers or more)—First, Thomaston Mills, Thomaston, nine accidents.

To Allocate Foods With Industrial Uses

The National Production Authority has delegated to the Department of Agriculture authority to exercise certain allocation and priority functions over foods which have industrial uses. The action, N.P.A. Delegation 10, implements and formalizes a recent memorandum of agreement between the two agencies fixing responsibility for production and distribution control of non-food and agricultural products. The agreement is designed to avoid overlapping of authority and duplication of reporting requirements. The two agencies will work out co-operative arrangements to meet these objectives.

Commodities which are the responsibility of agriculture until they enter a manufacturing process which results in their being neither food nor agricultural commodities include egg products, fats and oils, grain and grain products, molasses, spices, starches, sugars and tartaric acids. N.P.A.'s jurisdiction over these commodities begins when they are incorporated into manufactured products such as leather, textiles, paints, soap, insecticides, adhesives, etc.

Division of responsibility is specifically designated in such commodities as: Cotton lint and linters, hemp and flax fiber—the Agriculture Department has jurisdiction until the opening of the bale in the mill where these items enter into the first industrial manufacturing process; wool and mohair—Agriculture will be responsible for delivery, distribution and inventories except for inventories of scoured wool or mohair held by manufacturers for their use in production. Other divisions of responsibility will be worked out in cases where commodities falling under the jurisdiction of one agency are essential to a program objective of the other.

Cordage Committee Meets With N.P.A.

Opposition to a proposed conservation order cutting manufacturer's use of abaca and sisal fibers was voiced last month by the Hard Fiber Cordage Industry Committee at a meeting with the National Production Authority, U. S. Department of Commerce. Abaca (manila) comes from the Philippines and Central America. Chief producing sources of sisal are British East Africa, Portugese East and West Africa, Haiti and Brazil. Products made from these fibers include rope, twine, specialty papers and padding for furniture, mattresses and automobiles.

The committee recommended unanimously that the Munitions Board review its cordage fiber purchasing program, initiated in 1946, in view of increased production of sisal and abaca. If the Munitions Board, after weighing fiber availability against defense purchasing needs, feels that conservation measures are required, the committee expressed its willingness to co-operate.

Lacking firm defense requirement figures, the committee states it considers a limitation order on cordage fiber processsing as being against the national interest because of (1) damaging impact on essential industries such as agriculture, fishing, shipping and oil drilling and (2) loss of labor force and industrial potential. In the event of a full-scale emergency a substantial period of time would pass before the industry could recover its production capacity, representatives stated.

The committee opposed the use of the first half of 1950 as the base period for hard fiber cordage industry. During this period, members explained, the industry operation was low. Shipping, now a high consumer of rope, was then relatively inactive, they said, pointing out also that inventories of twine were large. Now inventories of both manufacturers and distributors of cordage are less than normal, the committee said. A percentage cut based on this period of low production would have two adverse results, manufacturers believed. It would cause uneconomic operation because of low volume of production with high cost fiber, bringing plant shutdowns. Military orders would tend to absorb the resultant decreased production, to the detriment of the defense-supporting economy. The committee concluded that at present a limitation order upon the industry is unnecessary and impractical. N.P.A. assured the committee that its recommendations and views would be given full consideration. A. Henry Thurston, acting director of N.P.A.'s textile division, presided.

Caution Against Improper Use Of DO-97

DO-97 ratings—used in purchasing certain materials needed for maintenance, repair and operating supply items (MRO)—must not be used to build up inventory stocks, the National Production Authority, U. S. Department of Commerce, stressed recently. N.P.A. said that some wholesalers, anticipating DO-97 rated orders from their customers, are building up stocks in advance to meet this expected demand by extending DO-97 rating prematurely to their own suppliers.

This is a violation of Regulation 4, N.P.A. pointed out. The wholesaler must not use the DO-97 rating to get replacement items until he has received a DO-97 order from his customer. When he gets such a rated order, it then becomes permissible for him to use DO-97 to replace the item sold. The DO-97 rating was established as a means of protecting civilian production and economy as far as possible by keeping civilian facilities in operating order, N.P.A. pointed out. The rating may be used by any business firm, government agency or private or public institution as provided in Regulation 4.

Cavitoma Cotton Seen As Growing Threat

Textile researchers and scientists in attendance at the tenth anniversary Spring meeting of the Fiber Society in Atlanta, Ga., April 18-19, were told that the increasing amount of cavitoma cotton now being received by mills is a matter of growing concern to producers, ginners, manufacturers and finishers of cotton fabrics. Dr. Laura Hall of Kendall Mills, Paw Creek, N. C., described the new cotton scourge at the opening session of the meeting.

Cavitoma is the name given by Dr. Hall and J. P. Elting of Kendall Mills to the cellulose-destroying micro-organisms now being found in cotton. The two scientists have been making extensive studies of this new threat to cotton fibers. "An increasing and now large proportion of the spinnable good grades of cotton received by the mills has been found

Yarn Mills Running Above Capacity
Despite the hampering effect on yarn movement caused by confusion over the recent general price ceiling regula-
yarn mills were slightly over 150 per cent of capacity
an 80-hour week, and the weekly poundage output was
excess of the peak 1950 rate reached in

Keep ahead of your ring needs

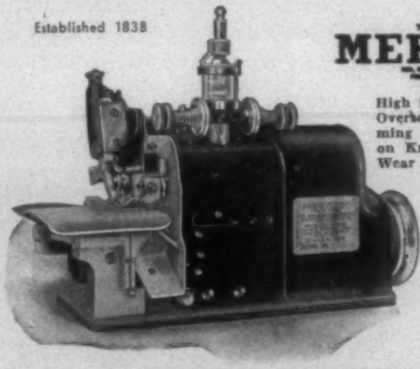
When you run more hours at forced speeds, you need a farsighted ring replacement program. Anticipate your requirements, so that we can schedule your DIAMOND FINISH rings for delivery in plenty of time.

WHITINSVILLE (MASS.)
SPINNING RING CO.
DIAMOND FINISH
Makers of Spinning and Twister Rings since 1873

BIBERSTEIN, BOWLES & MEACHAM, INC.
TEXTILE ARCHITECTS & ENGINEERS
CHARLOTTE 4, N. C. • Phone 2-5111

Established 1838

MERROW



High Speed Overedging, Overseaming and Hemming Machines for Use on Knitted and Woven Wear of All Kinds.

Quality Results — High Production — Convenient Handling — Minimum Time Out for Adjustment and Repair — Low Upkeep Costs.

For Best Results Use a Machine Suitably Arranged for Your Work.

The MERROW MACHINE COMPANY
2802 Laurel Street Hartford 6, Conn.
Distributors
Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

to contain an abundance of these micro-organisms," Dr. Hall told the group. Deterioration of cotton during warehouse storage has also been noted.

The full significance of this new threat to mills had not yet been determined, the group was told. However, they felt it a matter of considerable economic concern. Experiments have shown the effects of this cavitoma to be a shorter staple caused by weakening of the fibers, an increased amount of fly and lint, the formation of dye spots in vat dyed fabric and an increased sensitivity to alkali, Dr. Hall declared.

Loss of fabric strength after the usual alkaline kier boil and bleach has been traceable to fibers apparently damaged by micro-organism prior to the finishing processes. "Tests from Eastern and Central areas from which such cotton has been grown show that since 1947 the areas have been growing larger despite the fact that 1948 was a good cotton year," Dr. Hall declared. Tests in 1950 indicate that practically all of South Carolina's producing areas are infected.

The Kendall Mills researchers reported they had not had an opportunity to test cottons from Texas and Western areas. However, cavitoma was observed in the Western and California cottons last season. The prevalence and spread of this new threat to good commercial grades of cotton and the changes in fiber properties are altogether new, the group was told. Nor is it known by what means this cavitoma spreads and perpetuates itself from year to year. The micro-organisms penetrated the fiber wall and the lumen of the fiber, it was stated. The fibers become swollen throughout their entire length and straitions of the fiber appear. As the deterioration continues the fiber becomes increasingly sensitive to caustic and in some instances is virtually destroyed.

Dr. Hall described tests that revealed the existence of a low reducing sugar content and pH values of 8-9.5 of the readily water-extractable constituents. It was pointed out that the fluidity measurements may prove of value in further research. It was urged that other laboratories join in learning more about "cavotism" in cotton.

Fungus attacks on cotton, both known and new, that ruin fiber and lint and prove an economic loss to the farmer, were described by P. Marsh, U. S. Department of Agriculture, who outlined experiments being conducted by the department to control this destruction in cotton. Requirements in tire cord yarn were outlined by D. E. Howe, Firestone Tire & Rubber Co., who spoke on "Uniformity of Tirecord Yarns." Tire manufacturers are faced with the problem of obtaining from the mills the right kind of yarns to go into tires, Mr. Howe said. The only test is by measuring the uniformity of yarns that give adequate performance and the amount of varying strength and gauge.

The addition of nylon to blends of wool has been found to decrease the feltability in proportion to the amount of nylon present, Dr. Herman Bogaty of Harris Research Laboratories, Washington, told the society. A simple linear relationship was shown between the felting shrinkage of wool and the extensibility and the recoverability of the fiber from extension, Dr. Bogaty declared.

Single-fiber testing of natural fibers, necessary to the proper study of the relationships between fiber properties and fiber assemblies such as rovings, yarns and fabrics, is within the realm of feasibility for research purposes, Dr. H. R. Wakeman, Textile Research Institute, told the society. In his paper titled "Distribution of the Stress-Strain Properties of Single Cotton Fibers From Selected Samples," Dr. Wakeman outlined some of the experimental procedures now being used at Textile Research Institute. He also presented some of the distributional characteristics of cotton fibers and gave examples illustrating how single-fiber data might be used in determining important answers about cotton behavior.

In his talk on "Effect of Fiber Lubricity on Yarn Properties," Dr. H. H. Webber of the Lowell Textile Institute also discussed other yarn modifications such as wet stretching and swelling techniques. Lubricity was referred to as the restraint of fiber movement in yarn by the adding of lubricants and bonding agents. It has been demonstrated that this is one of the mechanisms available to modify yarn performance characteristics, the society was told. However, the application of these techniques must be dictated by the specific performance required, it was emphasized.

An automatic yarn load-elongation recorder was described by F. B. Breaseale and H. Irvin of the American Enka Corp. Much that is new is included in this multi-purpose yarn testing device, the society members were told. The general purpose instrument is a research tool embodying production type of testing features, the American Enka researchers explained.

D. De Meuleemester, who founded and is director of the textile laboratories of the University of Ghent, Belgium, was introduced by society president A. G. Scroggie, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., to members of the society. Director Meuleemester is on a two-month tour of the United States, visiting textile laboratories and mills.

The history and accomplishments of the Fiber Society during the ten years since it was organized at Georgia Tech, were given by W. R. Marsden, Bibb Mfg. Co., Macon, Ga. Mr. Marsden, who is director of fiber research for Bibb, was chairman of the group that met and organized the society in 1941. Mr. Scroggie announced that the Fall meeting of the society would be held in Swampscott, Mass., Sept. 13-14.

Fiber Society Schedules Two Meetings

John T. Wigington of Clemson, S. C., secretary of The Fiber Society, recently announced dates for the next two meetings of the society. The group will hold its Fall meeting Sept. 13-14 at Swampscott, Mass., and the Spring meeting in 1952 will be held April 16-17 at the Clemson House in Clemson, S. C.

Russell Says Industry Confused By Red Tape

Although the textile industry is in a state of confusion and concerned over red tape and confusing directives similar to those of World War II, it is producing at an unprecedented rate to meet the needs of the armed forces and civilian consumers. This opinion was expressed by Retiring President Thomas D. Russell at the 50th annual convention April 12-14 of the Alabama Cotton Manufacturers Association held at Biloxi, Miss. Mr. Russell, who is president of Russell Mfg. Co., Alexander City, Ala., declared that the textile industry is prepared to meet any emergency which may arise.

Textile mills comprise Alabama's largest industry, Mr. Russell pointed out. Currently there are 54,800 workers in the state's 77 plants earning at the rate of $160,000,000

Do You Want Facts About A Certain Cloth?

By W. A. GRAHAM CLARK

You (mill officials, selling house executives, students, professors) asked for it—in fact, you *begged* for it!

Now, after three years of work by the author and publisher, the third edition of *Clark's Weave Room Calculations* is available.

Since exhaustion of the second edition there have been many requests for this book from men actively engaged in the manufacture and sale of cotton goods, and a large number of increasingly urgent requests from textile school students and professors. The latter are interested primarily in the first part of the book—that dealing with cotton cloth calculations. In the revision of the first part (96 pages) some additional rules have been included, making a total of 74, along with further pertinent information—particularly as to loom speeds and the number of looms per weaver.

The second part of this new edition shows full particulars (width, weight, ends and picks, and warp and filling yarn numbers) for several thousand cotton cloths, grouped in tables appropriate to various sectors of the weaving industry. In the revision there have been added more than 700 fabrics, many of which attained importance during World War II. For some 1,900 plainwoven fabrics there have been added data as to the BYT (effective yards of yarn per pound of cloth) which also serves as the basis of the classification into groups.

The author, W. A. Graham Clark, retired recently after many years as chief of the textile division of the United States Tariff Commission. His practical and *absolutely accurate* treatise of cotton yarn and cloth calculations is finding wide application in the textile industry.

Price
$5

244
pages

Cloth
bound

Book Dept., Clark Publishing Co., Charlotte 1, N. C.

Please send______copy(ies) of CLARK'S WEAVE ROOM CALCULATIONS (third edition) at $5 each.

Check one _______Payment enclosed with order (publisher pays postage).
_______Send bill upon shipment (postage charged to buyer).

Signed:______________________________*(please print)*
______________________________*(firm)*
______________________________*(street address)*
______________________________*(city, zone & state)*

TILTON

Woven Endless Belts

Uniformly Strong

Eliminate vibration and transmit maximum power without slippage.

Constant Length

Practically all stretch and shrinkage taken out at factory.

Flat and Round

Card Bands • Lickerin Belts • Doffer Belts • Cone Belts • Belts for Driving Flats.

Exclusive Agents in Virginia, the Carolinas and Georgia

Oliver D. Landis, Inc.

718 Queens Road Charlotte 7, North Carolina

RAY CHEMICAL COMPANY

Charlotte, N. C.

—offers—

Quality, Efficiency, and Economy

for every

SCOURING, BLEACHING, WETTING, DYEING AND FINISHING PROBLEM

Industrial Engineers

Specializing in Textiles for over one-third of a century

PAYROLL CONTROLS COST SYSTEMS
SPECIAL REPORTS WORK LOAD STUDIES
COST REDUCTION REPORTS

Ralph E. Loper Co.

GREENVILLE, S. C. FALL RIVER, MASS.

annually. "Labor's standard of living has advanced considerably in recent years," he said, "especially that of textile workers. Wages have gone up much higher than the cost of things which workers buy."

Mr. Russell reminded the Alabama manufacturers that the last war was well under way before the true value of the textile industry was realized and higher priorities given mills. "Perhaps in this present emergency there will be someone in authority to realize that cotton textile products are second only to steel in value to our mobilization effort and will make adequate provisions for our industry," he said.

Under the association's rotation system, Mr. Russell became chairman of the board, succeeding Paul A. Redmond, Jr., of Birmingham, executive vice-president of Alabama Mills, Inc. D. H. Morris, III, president of Geneva (Ala.) Cotton Mills, was elected president, succeeding Mr. Russell. Mr. Morris was succeeded as vice-president of the association by Joe L. Jennings, vice-president of West Point Mfg. Co., formerly treasurer of the association. T. P. Roberts, manager and treasurer of Adelaide Mills, Anniston, was elected treasurer. Three new directors named were A. D. Elliott of Huntsville (Ala.) Mfg. Co.; J. Craig Smith of Avondale Mills, Sylacauga; and Alfred Randolph of Alabama Mills, Birmingham.

Manufacturers attending the convention generally agreed that the General Price Freeze Order has for many weeks hampered operations of the cotton and cotton textile industries. They explained that the industry is unique in that its more than 1,200 separate mills regularly sell their goods months in advance of manufacture. They hold that price ceilings based on delivery periods are unworkable when costs of materials and services have risen drastically between the time goods are sold and when they are delivered.

The present temporary price control law is to expire June 30 and mill men expressed the hope that the government will recognize the peculiar nature of the industry. If further price controls are considered necessary, cotton manufacturers recommend that the controls be tailored to meet specific requirements of various segments of the industry to permit continued peak production.

Comer safety trophies, which go to spinning and weaving mills with the best safety records, were awarded at the association's Golden Anniversary banquet by the director of the Alabama Department of Industrial Relations. Dwight M. Wilhelm, executive vice-president of the association, was lauded at the banquet for his book giving the history of the textile industry in Alabama. Concerning the book, Retiring President Russell stated in his annual address: "One of the outstanding accomplishments of the association this year was the publication of a history of the textile industry in Alabama. This work has received praise from all over the nation. In fact, the demand for the book has been such that a second printing is going to be necessary to take care of the call from libraries, schools and other organizations."

In the association's golf tournament, the George H. Lanier trophy for mill men was won by the association's new treasurer, Mr. Roberts, with a score of 87. This is a circulating trophy and will remain in Mr. Roberts' possession for one year. Second low gross for mill men went to Earl Heard of West Point (Ga.) Mfg. Co., with a score of 90. Altogether, Mr. Heard won three prizes, as he was the winner also of the low net for mill men, having a 71 net with 19 handicap, and he was given an award for coming within 16 inches of the pin on the third hole. Second low net for mill men went to Mr. Jennings of West Point Mfg. Co.—75 net, 22 handicap.

J. Glen Fisher of Fisher Mfg. Co., Hartwell, Ga., won low gross for the suppliers, with an 86. Linton S. Selman of Milland Textile Supply Co., Birmingham, won second low gross with a score of 90. He had tied with Fred C. Hasserman of Corn Products Co., Memphis. Mr. Fisher also won low net for the suppliers—his net being 70 with a 16 handicap.

The award for second low net went to L. C. Johnson of State National Bank, Florence, Ala., whose net was 76, with a 17 handicap. He won in a three-way tie with Ernest D. Key of Atlanta (Ga.) Belting Co. and Hugh K. Smith of Terrell Machine Co., Langdale, Ala.

Fenaux Re-Elected By Textile Fraternity

Louis E. F. Fenaux of New Bedford, Mass., professor of chemistry at the New Bedford Textile Institute, has been re-elected supreme counsel of Delta Kappa Phi, national professional textile fraternity. Mr. Fenaux and three other Massachusetts residents were chosen officers at the 27th annual national convention last month at the School of Textiles at North Carolina State College, Raleigh.

Approximately 100 delegates attended the meeting. Representatives came from chapters at the Philadelphia, New Bedford and Lowell Textile Institutes, Georgia Tech and North Carolina State College.

Other officers chosen were: John Foster, professor of engineering at New Bedford Textile Institute, who was elected supreme pro consul; Allan B. Mercer, an engineer with New Bedford Electric Light Co., who was named supreme annotator, and Elliott S. Borden, chemist with Revere Copper & Brass Co. at New Bedford, who was elected supreme custodian.

The host organization was the Kappa Chapter at the School of Textiles at North Carolina State College. The host group is headed by Harvey Schieviak of Kenosha, Wis.

Piedmont A.A.T.C.C. Unit To Hold Outing

The Piedmont Section of the American Association of Textile Chemists & Colorists will hold its Summer outing June 29-30 at the Ocean Forest Hotel, Myrtle Beach, S. C. Members have been notified that reservations should be made directly with the hotel. Rooms will be assigned by the hotel, first come, first served. Members will have priority until June 4, after which date non-members may make reservations.

A.A.T.C.C. Unit Hears Talks On Dynel

Two representatives of Carbide & Carbon Chemicals Co., A. L. Snyder and T. A. Field, Jr., presented a detailed discussion on Dynel at the May 12 meeting of the South Central Section of the American Association of Textile Chemists and Colorists in Chattanooga, Tenn. William G. Agnew of Dixie Mercerizing Co., chairman, presided at the meeting. H. G. McIsaac, a representative of the Office of the Quartermaster General, also addressed the gathering, taking as his subject "Specifications on Army Textile Purchases." Instead of the usual social hour and banquet, the group attended the open house at the recently completed Chattanooga branch of American Aniline Products, Inc.

WENTWORTH
Double Duty Travelers
BEWARE OF CHEAP IMITATIONS
NATIONAL RING TRAVELER CO. PAWT. R.I. U.S.A.
Reg. U. S. Pat. Off.
HICKS — AMERICAN — WILSON — U. S. STANDARD
Last Longer, Make Stronger Yarn, Run Clear, preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE
NATIONAL—ETARTNEP FINISH
A NEW CHEMICAL TREATMENT
Manufactured only by the
NATIONAL RING TRAVELER CO.
PAWTUCKET, R. I.
131 W. First St., Charlotte, N. C.

The Textile Shops
SPARTANBURG, SOUTH CAROLINA
DUST COLLECTING SYSTEMS
VAPOR EXHAUSTING SYSTEMS
ALL TYPES VENTILATING
STAMPING & SCREW MACHINE PRODUCTS
CARD SCREENS
SPINNING CYLINDERS
QUILL CANS, ETC.
COPPER AND STAINLESS STEEL SLASHER CYLINDERS & DRY CANS
COPPERSMITHING & SHEET METAL WORK
COPPER AND STAINLESS STEEL SLASHER ROLLS
SIZE KETTLES & TANKS

Specialists Since 1939 In
TEXTILE CLEARERS
TOP CLEARER BOARD—Made of maple—expertly machined
PLUSH SCAVENGER ROLL—A Specialty
REVOLVING TOP CLEARER ROLL—Featuring uniform covered surfaces
CLEARER CLOTH COTS—Note flat lock seam improvement
"Every Customer a Satisfied One"
E. F. ROSE & CO. Maiden, N. C.

N. C. State Student Wins A.A.T.C.C. Contest

C. Frank Donyes of Los Angeles, Calif., a senior in the School of Textiles at North Carolina State College, Raleigh, won first place in an intersectional technical paper contest sponsored by the Piedmont Section of the American Association of Textile Chemists and Colorists. The contest was the principal feature of the Spring meeting of the Piedmont Section held April 21, in Raleigh. Students from Clemson College, Georgia Tech, and N. C. State College competed in the event.

Second place in the contest also went to students from N. C. State—John R. Mauney, Jr., of Shelby and Gerald L. McRee of Charlotte, N. C. Other students entering the competition were Charles E. Coleman, Billy G. Estes, Melbourne G. Michaels, and Walter L. Thompson, all of Clemson College; and Alen D. Nacht, Stanley D. Bulbin, Joseph E. Bresnaham, George Fisk, William H. Muse, and Benjamin L. Powers, all of Georgia Tech.

Mr. Donyes, the first-place winner, was awarded books valued at $40 and will be given an expense-paid trip to New York City, where he will present his paper at the national convention of the American Association of Textile Chemists and Colorists in October. Books valued at $30 were presented to Mr. Mauney and Mr. McRee as the second-place winners.

The awards were presented at a banquet at the Sir Walter Hotel. Principal banquet speaker was W. E. Debnam, Raleigh radio commentator and author. He was introduced by Dean Malcolm E. Campbell of the N. C. State College School of Textiles. Approximately 400 attended the banquet.

Topic of the prize-winning paper by Mr. Donyes was "Textile Application of Infra-red Photography." His report was based on individual research work which he has done at the college. In his paper Mr. Donyes cited research investigations which seek to show the value of using infra-red photography in solving problems of textile dyeing and finishing. The capacity of the infra-red light to penetrate fabrics, together with other characteristics may provide a means of approaching dyeing and finishing bottlenecks which have not been solved through conventional means.

M. M. McCann of Burlington, N. C., was chairman of the student technical paper contest. Herman J. Jordan of Albemarle, N. C., made arrangements for the meeting of the Piedmont Section.

The meeting was one of three held by major groups within the American Association of Textile Chemists and Colorists at the N. C. State College School of Textiles April 19-21.

The National Council transacted a wide range of business matters during its 176th meeting. C. Norris Rabold of Cooleemee, N. C., association president, presided. Messages of welcome were delivered by Dean Campbell and by Prof. Henry A. Rutherford, head of the college's department of textile chemistry and dyeing.

Leonard S. Little of New York, chairman of the association's executive committee on research, cited what he termed "a greater need" for expansion of A.A.T.C.C. research activities to cover end-use test methods needed by industry. He also expressed the need of providing an assistant for Dr. H. W. Stiegler, the association's director of research.

Five technical papers have been received for presentation at the forthcoming annual convention. This was reported by William Holst of New York, technical program committee chairman. The committee, Mr. Holst said, would like to obtain ten or 11 additional papers and particularly welcomes papers from persons connected with textile mills.

Reporting for the corporate membership committee, George O. Linberg of Boston, association vice-president, said that collections for corporate membership were "holding their own" and that the number of sustaining members had been more than doubled within the last year. New members totaling 218 were accepted by the council at the meeting on recommendation of Mr. Linberg, who also heads the membership committee.

The council accepted the invitation of its three Southern sections—the Piedmont, Southeastern, and South Central—to hold the 1954 convention in Atlanta, Ga. The date will be set later. The next meeting of the National Council was scheduled for June 26 in New York.

Decision also was made to pay the expenses of Mr. Little and Mr. Rabold to attend the annual meeting of the international organization of standardization at Bournemouth, England, June 4-9.

The executive committee on research made known that it foresaw a research budget 50 per cent higher during the next 12 months than was the case during the previous year. The development was reported by Mr. Little, committee chairman. Expansion, Mr. Little said, is the keynote of the executive committee on research. He also reported that the dry cleaning committee had been re-activated because of mounting interest in this work.

Dr. H. W. Stiegler, the association's director of research, said A.A.T.C.C. space for research at the Lowell Textile Institute had been increased, that a large laboratory would be added and that several items of new equipment would be installed there.

Reporting for the committee on fastness to light, Matthew Babey of Bound Brook, N. J., said his group had been studying methods of standardizing sunlight exposures and methods of calibrating fade-o-meter exposures, the latter in collaboration with the Federal Bureau of Standards.

C. A. Sylvester of Wilmington, Del., wash fastness committee chairman, discussed the work which had been done by his committee and indicated that further work would develop other accelerated tests to predict the results of the commercial laundering of fabrics. His presentation drew considerable discussion.

K. H. Barnard of Bound Brook, N. J., speaking for the committee on dimensional changes, stated that recent government procurements made the wool shrinkage program much more important and that his committee was actively at work on this program. He also referred to the final report of the hosiery subcommittee which has concluded that the most representative test is that specified in CC-T-191A and referred to as the U. S. Army accelerated test. He also stated that the knitgoods group was engaged in a broad program of work.

As chairman of the flammability committee, Dr. Herman Hager of New York stated that the official method had been accepted by mail ballot and that his committee now had agreement on the interpretation of the results. Three classes, he said, have been set up: (1) Safe fabrics which require more than seven seconds to burn in the official tester. (2) Intermediate fabrics which require four to seven seconds. (3) Dangerous fabrics which burn in less than four seconds.

A. D. Nute of Providence, R. I., durable finishes committee chairman, said his committee was continuing its study on crease resistance and was adding to its program tests for stiffness.

Mr. Little, who presided over the session, extended the organization's appreciation to the School of Textiles at North Carolina State College for its hospitality and entertainment at the national meetings and requested that members submit constructive ideas for the consideration of the executive committee on research.

Ix Succeeds Neubert As N.F.T. President

Alexander F. Ix, president of Frank Ix & Sons, Inc., was elected president of the National Federation of Textiles, Inc., recently at the annual meeting of the board of directors. He succeeds Henry Neubert, now vice-president of Central Hanover Bank & Trust Co., who has been president of the federation since 1947. Mr. Ix, with his brothers, Charles, William, Frank and Edward, has been engaged first in silk weaving and later in weaving and spinning of man-made fibers for his entire business career.

Elected vice-presidents were John Fox, Fox-Wells & Co.; Andrew J. Sokol, J. P. Stevens & Co., Inc.; Jacques Weber, Bloomsburg Mills, Inc. Miss Irene Blunt was re-elected secretary-treasurer. The following were elected to the board of directors to succeed six directors whose terms expired this year: to represent associate members, Philip F. Brown, E. I. du Pont de Nemours & Co., Inc.; to represent regular members, J. Calhoun Harris, Deering, Milliken & Co.; Edmon G. Luke, Bates Mfg. Co.; Andrew J. Sokol, J. P. Stevens & Co.; Joseph W. Stark, William Klopman & Sons, Inc., and Edward Werner, Robbins Mills, Inc.

Listing some of the group's activities in recent years, Mr. Neubert said in his annual message: "Most outstanding from the viewpoint of long-range importance is the coordination program which we undertook in 1950 when the Korean situation brought us back suddenly to the need for concerted action in supplying information facilities that are required for military use and in working with the revised government control agencies for the allocation of wanted materials and in assisting in the developing of proper price controls. That record, as outlined in the secretary's report, demonstrates that the industry has become much more of an entity than would have been considered possible ten years ago."

Colorists Hear Talk On Acetelyated Cotton

Addressing the May 5 meeting of the Southeastern Section, American Association of Textile Chemists & Colorists, in Atlanta, Ga., Dr. C. F. Fisher of the Southern Regional Research Laboratory, New Orleans, La., revealed that acetelyated cotton, a new method of modifying cotton fibers and fabrics developed at the research laboratory, soon will be in commercial production. Speaking at the banquet session, Dr. Fisher expressed the opinion that acetelyated cotton, because it is highly resistant to heat and mildew, would find its greatest use in the garment industry.

Dr. Fisher reviewed the achievements in cotton research at the Southern Regional Research Laboratory during the first ten years of operation. Cotton textile plants, he de-

NOW AVAILABLE

Practical Textile Designing

by

THOMAS NELSON
Dean Emeritus, School of Textiles, North Carolina State College

☆

A new and enlarged edition of 196 pages; profusely illustrated; cloth bound. Price $2.00 . . . Orders filled promptly.

CLARK PUBLISHING CO.
P. O. BOX 1225 • • • CHARLOTTE 1, N. C.

THE NEW EDITION
of Nelson's
PRACTICAL LOOM FIXING
IS NOW AVAILABLE

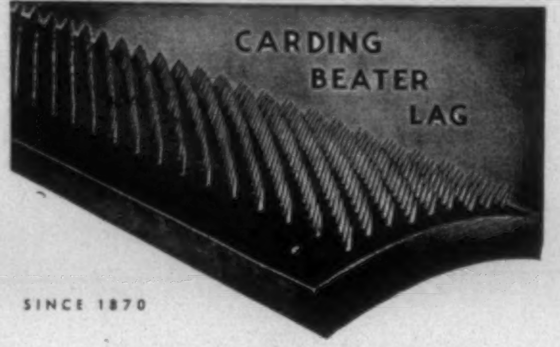
Completely Revised and Includes a Chapter on The Crompton and Knowles Automatic Magazine

Cloth Bound - Nearly 100 Illustrations

PRICE $2.00

CLARK PUBLISHING COMPANY
CHARLOTTE 1, N. C.

PINS and LAGS



SINCE 1870

A BIG MODERN PLANT
PLUS 80 YEARS of EXPERIENCE

It means that you can speed your production by making use of all the knowledge we have gained on needle-pointed specialties for the preparation of wool and other fibers. In all the field—no plant like this—no such rich fund of experience—no such quality. Your inquiries will receive prompt attention.

■ ■ ■

WILLIAM CRABB & CO.

P. O .Box 95 Black Mountain, N. C.

TELEPHONE 5-0371 WORKS N. MARIETTA ST

BARKLEY
MACHINE WORKS
MANUFACTURERS OF
TEXTILE MACHINERY
PARTS

GASTONIA, NORTH CAROLINA

The GASTONIA
MILL SUPPLY CO.

Industrial, Textile, Electrical and
Plumbing Supplies & Equipment

GAMISCO

GASTONIA, NORTH CAROLINA

clared, currently are showing enthusiasm over a new cotton opener that is being perfected by laboratory workers and a new loom attachment that permits weaving of denser fabrics and better weaving of fabrics of normal density.

Gillespie Smith, Calco Chemical Division, American Cyanamid Co., Atlanta, chairman of the Southeastern Section, A.A.T.C.C., presided at the banquet held in the Georgia Tech dining hall. Russell Gill, Southern Sizing Co., Atlanta, said that the invitation of the South Central, Piedmont and Southeastern Sections, that the national A.A.T.C.C. hold its 1954 convention in Atlanta, had been accepted. Howard McCamy, Pepperell Co., reported that plans were completed for the Southeastern Section's annual outing to be held at Radium Springs, Ga., June 8-9. J. W. Swiney, Fulton Bag & Cotton Mills, Atlanta, presided at the technical session held in the Hightower Auditorium of the A. French Textile School, when three papers were presented.

Booklet On Textiles Requiring Fungicides

Ninety-three specifications for the fungicide treatment of textiles are listed in a new edition of an *Abstract of U. S. Government Specifications for Textiles and Textile Products Requiring Fungicides* prepared by Nuodex Products Co., Inc., Elizabeth, N. J. The abstract shows in tabular form the number and title of applicable Army, Navy, Air Force, Coast Guard and federal specifications. It also lists the material treated, the type fungicide required and the deposition necessary as well as brief descriptions and chemical constants of the Nuodex products permissible under the various specifications.

Textile manufacturers and finishers and manufacturers of textile coatings find the compilation a convenient and informative guide to those specifications which comprise the bulk of current government textile procurement of fungicide treated materials. Free copies of the abstract are available on request from Nuodex and are furnished in a permanent binder. The abstract is revised every three months to keep it current. Revisions are automatically mailed to all previous recipients without charge.

Article Themes Color Measuring Standards

Representatives of the government, consumer interests and industries interested in color specifications have developed three American standard methods of measuring and specifying color. These standards are considered in a recent article prepared by Dr. David L. MacAdam of Eastman Kodak Co., who is chairman of the American Standards Association subcommittee that developed the standards.

Dr. MacAdam states, in part: "As measurements become more precise, standards become essential. The definition of measurements in terms of basic principles become more important when the highest accuracy is sought.

"Although a sufficiently accurate technique for measuring color has been developed only recently, the use of so-called "color standards" has been common for over 30 years. These consist of materials which are visually compared with the sample. This may be simple side-by-side comparison or may be facilitated by optical devices for juxtaposing the colors of the standard and sample. To cover the wide range of color (several million different colors being distinguishable), sets consisting of fairly large numbers of "color standards" have been used. To bring order out of the chaos of several hundred such standards and to insure against serious gaps, they have been arranged in a systematic manner by their originators.

"Although all such systems of arrangement agree in using three independent variables, the choice of specific variables is subject to wide differences, and the several popular color systems differ primarily in this choice. The names of Munsell, Ostwald and Lovibond refer to different systems of arranging color standards.

"These standard have not been adopted by any authoritative bodies having broad bases of representation, nor are they the subject of the project carried on under the procedure of the American Standards Association." The three standards, recently published, are "American Standard Method of Spectrophotometric Measurement in Color, Z58.7.1-1951;" "American Standard Method for Determination of Color Specifications, Z58.7.2-1951;"" American Standard Alternative Methods for Expressing Color Specifications, Z58.7.3-1951."

Experimental Wool Scouring Machine

An investigation of stream pollutional contributions of wool scouring liquors at Lowell (Mass.) Textile Institute has led to development of an experimental wool scouring machine, which is now installed at the institute. The machine was developed to provide the research effort with scouring waste produced under controlled conditions. The engineering staff of C. G. Sargent's Sons Corp., Graniteville, Mass., contributed the major portion of the design of the apparatus as well as overseeing the construction of the equipment in the Sargent plant. The machine is described in detail in a recent bulletin of Lowell Textile Institute, Series 54, No. 2, by Harold H. Webber, director of the institute's experiment station.

Machinery Producers Get Pricing Order

Under certain conditions, manufacturers are permitted to devise their own pricing methods for entirely new machinery under provisions of the machinery price order issued May 3 by the Office of Price Stabilization. This order, Ceiling Price Regulation 30, effective May 28, also allows for consideration of cost increases where a manufacturer has substantially altered his product since his base period.

Like C.P.R. 22, this order allows a choice of one of the four quarters in the period July 1, 1949 to June 24, 1950 as the base period. In addition, some other base period may be allowed, if a producer devises his own pricing method for new machinery and O.P.S. does not disapprove that method. However, the order does not cover machinery which a manufacturer builds and leases without actually selling the equipment. The order does cover the pricing of parts for sub-assemblies which a machinery producer might sell to another manufacturer who has leased equipment from him. Following are the highlights of C.P.R. 30:

Coverage: Applies to sales by all manufacturers of machinery covered by the order, including exporters, except sales by re-sellers. O.P.S. will issue a price order for resellers of the machinery covered by C.P.R. 30, but until it does they remain under G.C.P.R.

Type of Order: C.P.R. 30 sets ceiling prices for numerous machinery manufacturers at pre-Korean base plus actual increases in material costs to Dec. 31, 1950, for some

THREE AREA SALES OFFICES FOR PERSONAL ATTENTION TO YOUR NEEDS

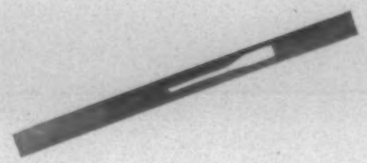
Northern Plant
BOX 560
NEW BEDFORD,
MASS.

Branch Office
2601 N. BROAD ST
PHILADELPHIA,
PA.

Southern Plant
BOX 59
GREENVILLE,
S. C.

Schmidt

"IMPACT"
BOX & BINDER LEATHERS



CUT LOOM MAINTENANCE
High impact resistance at the point of shuttle contact, proper coefficient of surface friction, uniformity of thickness and finish — help shuttles box sweetly.
PROVEN DEPENDABLE
For further information, prices or samples, write Dept. TB, nearest office.

TEXTILE LOOM EQUIPMENT SPECIALISTS
Schmidt
MANUFACTURING COMPANY
NEW BEDFORD, MASSACHUSETTS
GREENVILLE BELTING CO., GREENVILLE, S. C

J. N. PEASE & COMPANY
Industrial Engineers
119½ E. FIFTH ST. CHARLOTTE, N. C.

HEADQUARTERS
FOR
SIZING • PENETRANTS
SOFTENERS • ALKALIES
SHUTTLE DRESSING
"TWIST-SETTER" MACHINES
SEYDEL-WOOLLEY & CO.
TEXTILE CHEMICALS
748 RICE STREET • ATLANTA, GA.
SEYCO

Read TEXTILE BULLETIN Want Ads

materials and to March 15, 1951, for other materials. Increases in certain factory payroll costs are allowed up to March 15, 1951.

Base Period: O.P.S. allows choice of any one of the four quarters in the period from July 1, 1949, to June 24, 1950 (this means the fourth quarter is short six days of being a full quarter). In addition O.P.S. allows a manufacturer to propose his own pricing method for entirely new machinery which he cannot compare with base period prices.

Calculating Costs: Four methods are provided for figuring materials cost increases and two methods for determining labor cost increases. Increased costs not allowed are such things as general administration, sales and advertising, distribution and purchasing. Also, in allowaable materials cost increases, current consideration is allowed only for importers' services normally performed such as sorting or packaging. O.P.S. plans one re-calculation of materials costs after the producers have determined their price ceilings under C.P.R. 30.

Cost Absorption: Required to a limited degree in that overhead or some indirect costs not allowed and allowable labor costs cut off at March 15, 1951. Also allowable materials costs cut off either at Dec. 31, 1950, or March 15, 1951.

Notification: Manufacturers cannot use proposed price higher than G.C.P.R. until 15 days after notifying O.P.S. Also, for producers wanting to use special pricing system proposed by themselves, they must wait 30 days after submitting it to O.P.S. In both instances, notice can be given to O.P.S. before May 28.

April Rayon Yarn Shipments Analyzed

Rayon shipments to domestic consumers in April totaled 109,100,000 pounds, a decline of three per cent from the 112,900,000 pounds delivered in March, but 17 per cent more than the 93,500,000 pounds shipped in April, 1950, according to the *Rayon Organon,* statistical bulletin of the Textile Economics Bureau, Inc. Total shipments in the first four months of 1951 amounted to 426,700,000 pounds, an increase of eight per cent over shipments in the corresponding period of 1950.

Viscose+cupra textile yarn shipped in the first four months of the year totaled 111,500,000 pounds, a gain of ten per cent compared with the January-April period of 1950. Viscose high tenacity yarn shipped in the period amounted to 104,800,000 pounds, a gain of seven per cent; acetate yarn 105,800,000 pounds, a gain of five per cent; acetate staple 40,900,000 pounds, a gain of 16 per cent; and viscose staple 63,700,000 pounds, a gain of seven per cent. April shipments by categories were as follows: viscose+cupra textile yarn 28,900,000 pounds; viscose high-tenacity yarn 25,900,000 pounds; acetate yarn 27,400,000 pounds; acetate staple 10,600,000 pounds; and viscose staple 16,300,000 pounds.

Producers' filament yarn stocks at the end of April amounted to 9,100,000 pounds, or about a three-day supply. Stocks of rayon staple at the end of the month totaled 3,700,000 pounds, about a four-day supply.

Rayon staple imports in March of this year amounted to 6,468,000 pounds, the lowest since April, 1950. Cumulative imports for the first quarter of the year were 24,991,000 pounds, a gain of 60 per cent over the first three months of 1950. Germany was the top shipper to the United States in the first quarter of this year with 21 per cent of total staple imports, followed by France with 12 per cent; United Kingdom ten per cent; Italy and Switzerland nine per cent each; Austria, Belgium, Norway and Sweden seven per cent each; the Netherlands four per cent; and all other countries seven per cent.

Rayon filament yarn imports in the first quarter totaled 3,467,000 pounds compared with 145,000 pounds in the first quarter of 1950. During March, 985,000 pounds were imported, the lowest figure since August of 1950. Chief exporters to the United States were Italy, France, Germany, Cuba, Canada, Switzerland, and the Netherlands.

A study of the first quarter 1951 rayon production in the United States by the *Organon* reveals that the output was 326,200,000 pounds, only one per cent less than the record 329,700,000 pounds produced in the fourth quarter of 1950. Compared with the first quarter of 1950, however, the quarter just past showed a gain of 6½ per cent.

First quarter production of high-tenacity viscose yarn amounted to 80,200,000 pounds, a gain of four per cent compared to the corresponding period of 1950. Viscose+cupra textile yarn output at 83,900,000 pounds was up 11 per cent; acetate yarn at 81,700,000 pounds, up two per cent; viscose staple plus tow at 49,500,000 pounds, up eight per cent; and acetate staple plus tow at 30,900,000 pounds, up 13 per cent. The output of viscose textile yarn and the viscose staple plus tow were at all-time high levels in the first three months of the year.

Filament yarn shipments during the first quarter aggregated 243,400,000 pounds, a gain of four per cent over the same period in 1950, but four per cent less than the record

HANDY SUBSCRIPTION BLANK

Please enter my subscription to TEXTILE BULLETIN for ______ (Check) one year at $1.50 or ______ (Check) three years at $3.00.

SIGNED______

POSITION______

FIRM______

ADDRESS______

______

(NOTE: In some cases four to six weeks are required in the processing of a new subscription before copies begin to reach you; please be patient.)

______REMITTANCE ENCLOSED; ______SEND BILL.

Please Send Money Order or Check as we cannot be responsible for cash.

Mail to TEXTILE BULLETIN, P. O. Box 1225, CHARLOTTE 1, N. C.

shipments in the final quarter of 1950. Shipments to the textile trades during the quarter amounted to 163,600,000 pounds compared with 156,000,000 pounds in the first quarter of 1950. For tires and related uses, a total of 76,200,000 pounds were shipped, as against 74,600,000 pounds in the first quarter of last year; broad woven goods 132,000,000 pounds against 129,000,000 pounds; warp knitters 10,500,000 pounds against 8,200,000 pounds; circular knitters 8,900,000 pounds against 9,000,000 pounds; hosiery 1,800,000 pounds against 2,200,000 pounds; narrow woven goods 3,200,000 pounds against 2,900,000 pounds; and miscellaneous uses 7,200,000 pounds against 4,700,000 pounds.

Average denier of yarns shipped in the first quarter were as follows: viscose+cupra domestic textile yarn 134 denier, no change from the previous quarter; tires and related uses, 1,568 compared with 1,561 in the previous quarter; acetate filament yarn 102 compared with 103.

A compilation of recent developments in military textile purchasing policy by the *Organon* clearly reveals the growing importance of man-made fibers. Early in April the Department of Defense announced it had ordered savings in wool requirements and that a goal of as much as 15 per cent reduction of the services' requirements for new wool had been set. The measures included first, a broadening of specifications to permit the use of lower grades of wool; second, adoption of lighter weight woolen and worsted fabrics for use in specific instances such as for a general wear uniform authorized in addition to the combat uniform; third, increased use of reprocessed and reused wool; and, fourth, use of synthetic or other fibers where research and development indicate improvement.

It is significant, too, that the Army has adopted an 85 per cent wool and 15 per cent nylon blend for its 16-ounce shirting fabric and the use of nylon in place of wool has been adopted by all services in various knitted items. Flight clothing presently used by the Air Force, for instance, is manufactured principally from synthetic materials, and the Marine Corps has issued a directive specifying that all woolen and worsted fabric procured in the future will contain 15 per cent Dacron polyester fiber or Orlon acrylic fiber, and this same branch of the service has suspended the manufacture of tropical worsted uniforms for wear by enlisted personnel.

The Navy is completing a final evaluation in the development of 70 per cent wool, 20 per cent rayon, and ten per cent nylon melton cloth, used mainly for dress blues. In March the Department of the Army stated that Summer uniforms of tropical types other than worsteds have been authorized for Army personnel.

Experimental Arctic clothing is undergoing final evaluation by the Navy in search for suitable cold weather clothing for Northern waters. A high proportion of nylon is used in the cold weather outfit with a total weight of 18 pounds as against present standard Navy Winter clothing of cotton and wool weighing about 35 pounds.

The *Organon* points out that according to U. S. Census Bureau figures, the annual consumption of rayon staple in wool manufactures increased substantially in 1950 compared to 1949. A total of 25,866,000 pounds were used in woolen spinning system, a gain of 29 per cent; 10,156,000 pounds in the worsted system, a gain of 105 per cent; 12,529,000 pounds for carpet and rug yarns, a gain of 336 per cent; and total rayon 48,551,000 pounds, a gain of 74 per cent.

DRONSFIELD'S PATENT
ATLAS BRAND
EMERY FILLET

STOCKED BY
THE PRINCIPAL MILL SUPPLY HOUSES
AND CARD MAKERS

THE PAGE BELTING CO.
CONCORD, N. H.
is pleased to announce the appointment of
CRAWFORD & GARNER, INC.
P. O. Box 1839
SPARTANBURG, S. C.
as Exclusive Distributors for the Piedmont Section
for Page Quality Leather Belt, Page Hair-on Check Straps, and All Types Textile Strapping.
Makers of Quality Leather Products for Over 90 Years
Call
CRAWFORD & GARNER, INC.
Spartanburg, S. C. Phone 8165

SELLING AGENTS
For Southern Cotton Goods

CURRAN & BARRY

320 BROADWAY
NEW YORK, N. Y.

Package Dyeing and Bleaching

ALL TYPE COLORS
ON COTTON YARNS

PIEDMONT PROCESSING CO., Belmont, N. C.

MILL REPAIR SERVICE

with Quality Workmanship
and Prompt Service
— AT A SAVING —

Repairing all types of Rolls and making new Steel Rolls
Overhauling Drawing a Specialty

Repair and make NEW Card Room Spindles

Make new any Fluted Roll • Lifter Rods
Gears • Trumpets

Satisfaction Guaranteed on all Work

Pres. and Gen. Mgr.: Mr. Sam Tull

Gastonia Roller,
Flyer & Spindle Co., Inc.

1337 W. Second Ave. Gastonia, N. C.
Phone 5-1531 or 5-1030

Fringe Benetfits Called Inflationary Threat

Tendencies of the government to yield to labor demands that so-called "fringe benefits" be excluded from wage stabilization controls constitute a major inflationary threat in the nation today, Harvey Dann, insurance executive, declared in an address before the annual dinner meeting of the Financial Group of the Association of Cotton Textile Merchants of New York at the Savoy Plaza last month in New York City.

"The whole area of fringe benefits," Mr. Dann stated, "will be a major battleground between the advocates of government control and private enterprise. While this country is at war it is easy to minimize the effect of increases in disability insurance and other fringe benefits. However, the social planners may change the entire social structure of our country by a program of increased benefits and high taxes. The costs of increased fringe benefits will not go back after the emergency; the so-called 'social gains' will be ever present and so will their added cost."

Mr. Dann's address was part of a general discussion program conducted by the Financial Group, in which disability insurance as established in New York and other states was presented in detail by Mr. Dann, and general discussions of the changes in the New York State unemployment insurance laws resulting from the Hughes-Brees bill passed by the last legislature took place. At the meeting Gordon L. Judson of McCampbell & Co., Inc., was elected group chairman for the new year, succeeding Chairman William G. Lipsey of Turner Halsey Co., who presided. Brief remarks on current conditions in textiles were also made by W. Ray Bell, president of the association.

In his address Mr. Dann expressed the view that the United States and its allies in their conduct of a worldwide economic effort might well succeed in winning "a gigantic victory without the necessity of an all-out war" in their struggle with Communism. "Many well informed men feel our growing effectiveness on the political and economic fronts will force an economic and political collapse within Russia," he said. He predicted a climax by the end of 1953.

Such results, however, depend in great measure on economic conditions at home where production facilities are being enlarged and costs of this expansion tend to be "played down," with lip-service to halting inflation and stopping the loopholes in controls, Mr. Dann held. Exclusion of "fringe benefits" from wage controls would be one of the larger gaps, he said, and industry may be expected to be "under pressure to increase pensions, disability benefits, life insurance, accident, hospitalization and medical plans."

Such increases, while not as "directly inflationary" as wage increases, he said, are still production costs that normally are passed on in the price to the consumer. If an

J. P. STEVENS & CO., Inc.
fabrics for diversified uses

1410 BROADWAY 44 LEONARD STREET
EMPIRE STATE BUILDING
NEW YORK

employee is relieved of insurance, hospitalization and other costs, this in turn adds to his spendable income and is hence inflationary. Mr. Dann then discussed in detail the disability laws of various states. In connection with the New York law he foresaw efforts in the next legislature to increase weekly benefits, the length of benefits, and to add hospitalization coverage.

In the group's discussion of the New York unemployment insurance law amendments, the view was expressed that changes resulting from the Hughes-Brees bill will be beneficial to the economy of the state. New business enterprises and expansion of existing ones will be encouraged, while workers in the state will enjoy a more adequate benefit schedule and increased benefits in all wage classes. Employers also will enjoy a sound and more equitable method of financing the unemployment insurance program. This, it was suggested, would be highly favorable and a reversal of conditions in recent years where an unemployment tax rate approximately double the rate for the rest of the United States has heretofore discouraged new enterprise in New York State.

Lack Of Pricing Formula Hurts Yarn Sales

Latest carded yarn statistics furnish evidence that the government's delay in issuing a separate pricing order for the cotton textile industry had taken its toll of sales by carded cotton sales yarn spinners, the Textile Information Service reports. Without a clear cut pricing formula to work with, the spinners booked only a limited amount of new business during most of April as they waited in vain for the pricing order that O.P.S. said would follow immediately after issuance of the general manufacturers' order.

During the month of April spinners' backlog of unfilled orders fell off about 13 million pounds as sales dropped well below the production rate. Unfilled orders as of April 28 were equal to 15.93 weeks' production compared with a backlog on March 31 equal to 15.65 weeks' production. The fact that the ratio of unfilled orders to weekly production showed an increase while the actual poundage backlog had dropped was due to the fact that the weekly production rate at end-April was off about 11 per cent from end-March, the Information Service pointed out.

Total yarn in stocks, including yarn made for future deliveries against unfilled orders, amounted to 48 per cent of a week's production on April 28; inventories on March 31 were equal to 35 per cent of a single week's output. Figures compiled by the Carded Yarn Association covering reports from approximately 1.4 million member spindles, showed that production in the week ended April 28 con-

J. W. Valentine Co., Inc.
Selling Agents
40 Worth St.   New York City
+ + +
Southern Representative
T. HOLT HAYWOOD
Wachovia Bank & Trust Co. Bldg.   Winston-Salem, N. C

JOSHUA L. BAILY & CO.
Established 1876

Merchandising · Converting
Cotton Fabrics

Broad Distribution
in the Principal
American and
Foreign Markets

40 Worth Street, New York 13, N. Y.

BRADLEY FLYER & REPAIR CO.
20 years experience repairing
Flyers, Cap Bars, Twister Racks
RAYFIELD-STEWART, INC.
Textile Spindle Repair Specialists
Plant and Office
1314 West Second Ave.   Phone 5-1692   Gastonia, N. C.

J. E. SIRRINE CO.
GREENVILLE • SOUTH CAROLINA
S
Engineers
TEXTILE MILLS • RAYON PLANTS • KNITTING MILLS • DYE HOUSES
BLEACHERIES • STEAM UTILIZATION • STEAM POWER PLANTS
WATER • WASTE DISPOSAL • APPRAISALS • PLANS • REPORTS

sisted of 28.5 per cent knitting yarn, 61.2 per cent weaving yarn, and 10.3 per cent all others. In the week of March 31, the production percentages were 30.1, 57.8 and 12.1, respectively.

Guard Against Release Of Vital Information

Secretary of Commerce Charles Sawyer has announced establishment of a service in the Department of Commerce to help the public guard voluntarily against the release of technological information which would endanger the national security. The establishment of this service followed a study and recommendations made by the Interdepartmental Committee on International Security, a committee of the National Security Council.

This service, to be operated through the Department's Office of Technical Services, will provide a central place to which state and local officials, representatives of private businesses, other organizations and private citizens may write for guidance as to whether specific technological information which is not subject to formal security regulations should be released, withheld, or given only limited distribution. Whether or not they follow this guidance is up to them.

Types of information over which such voluntary public guardianship is invited include technical data on advanced industrial developments, advanced production "know-how," strategic equipment, special installations, and significant integrations of previously scattered groups of information. The government has been receiving many such requests and the new service merely sets up a central location to which people may write for advice.

Inquiries may be addressed to the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C. O.T.S. will check them with the appropriate government specialists and agencies.

Chattanooga Yarn Group Schedules Outing

The Chattanooga (Tenn.) Yarn Association will hold its annual outing and golf tournament Thursday and Friday, June 7-8, at the Lookout Mountain Hotel, Chattanooga, it is announced by David W. Gott, secretary and treasurer of the group.

SOUTHERN SOURCES OF SUPPLY for Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ACME STEEL CO., General Offices, 2840 Archer Ave., Chicago 8, Ill. Sou. Div.: W. S. Huss, Mgr., 603 Stewart Ave., S.W., Sta. "A," Box 172, Atlanta, Ga. Dist. Sales Mgrs.: Atlanta—C. A. Carrell, 603 Stewart Ave., S.W., Sta. "A," Box 172, Atlanta, Ga.; Greenville, S. C.—G. R. Easley, 12 E. Plaza, Greenville, S. C. Special Reprs.: W. G. Polley, 603 Stewart Ave., S.W., Sta. "A," Box 172, Atlanta, Ga. Sales Reprs.: M. M. Brown, 106 N. Caldwell St., Charlotte, N. C.; S. F. Woodley, 723 Guilford Blvd., Greensboro, N. C.; R. C. Camp, 807 W. Franklin St., Richmond, Va.; D. C. Jorgensen, 603 Stewart Ave., S.W., Sta. "A," Box 172, Atlanta, Ga.; J. J. Jorgensen, 603 Stewart Ave., S.W., Sta. "A," Box 172, Atlanta, Ga.; H. C. Sharpe, Box 2463, 1226 Bryn Mawr Ave., Orlando, Fla.; J. B. Farr, 12 E. Plaza, Greenville, S. C. New Orleans District: J. C. Brill, Sales Mgr., 860 St. Charles Ave., New Orleans 13, La. Sales Reprs.: J. R. LeMaster, 260 St. Charles Ave., New Orleans 13, La.; E. E. Drewry, 1157 Terminal St., Box 2244, Memphis, Tenn.; N. C. Brill, 815 Live Oak St., Houston, Tex.; J. W. McLeod, 527—2nd Unit, Santa Fe Bldg., Dallas, Tex. Philadelphia District: Philadelphia District Mgr., C. E. Klinck, 5667 Ogontz Ave., Philadelphia 41, Pa. Baltimore District Mgr.: C. E. Helms, 1001 N. Calvert St., Baltimore 2, Md.

AIR ENGINEERING CO., 115 W. Catherine St., Charlotte, N. C. Sou. Reprs.: E. J. Severs, C. H. White.

ALDRICH MACHINE WORKS, Greenwood, S. C. Carolina Repr.: W. D. Wornall, Box 1524, Charlotte 1, N. C.; Georgia and Alabama Repr.: Ben R. Morris, Box 221, Brookhaven, Ga.; Repr. for Air Conditioning and Humidifying Equipment: J. E. Brown, Box 1318, Atlanta 1, Ga.

ALLEN BEAM CO., 156 River Rd., New Bedford, Mass. Sou. Repr.: Joseph Bowler, Jr., 107 McGee St., Tel. 3-3269, Greenville, S. C.

AMERCOAT CORP., 4800 Firestone Blvd., South Gate, Calif. Carolinas Repr.: Southern Specialties Co., 202 Coddington Bldg., Charlotte 2, N. C.

AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York 3, N. Y.; Works at Lock Haven, Pa.; Sou. Warehouse and Laboratory: 1500 Hutchison Ave., Charlotte, N. C.; Warehouse: Chattanooga, Tenn. Sou. Reprs.: J. H. Orr, Mgr., Charlotte, N. C., George R. Howard, Charlotte, N. C.; C. F. Martin, Jr., Charlotte, N. C.; Gayle Rogers, Charlotte, N. C.; W. D. Livingston, Greensboro, N. C.; Marion West, Jr., High Point, N. C.; J. T. Bohannon, Jr., Newnan, Ga.; C. O. Starnes, Rome, Ga.; R. W. Preeze, Chattanooga, Tenn.

AMERICAN CYANAMID CO., Industrial Chemicals Div., 30 Rockefeller Plaza, New York City. Sou. Office, Manufacturing Plant and Warehouse, 3333 Wilkinson Blvd., Charlotte, N. C. Hugh Puckett, Sou. Dist. Mgr. Reprs.: John D. Hunter, R. S. Meade, Q. M. Rhodes, Charlotte Office; Eugene J. Adams, P. O. Box 3228, South Highland Station, Birmingham, Ala.; Jack B. Button, 1409 Garland Drive, Greensboro, N. C.; C. B. Suttle, Jr., P. O. Box 4817, Atlanta, Ga.; A. R. Skelton, Jr., American Cyanamid Co., Mobile, Ala.; T. O. McDonald, P. O. Box 592, New Orleans, La.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN PULLEY CO., THE, 4200 Wissahickon Ave., Philadelphia 29, Pa. Sou. Reprs.: J. E. Williams, Box 870, Charlotte 1, N. C.; C. F. Hazen, 380 Garden Lane, N.W., Atlanta, Ga.; G. L. Harrison, 2216 E. Illinois Ave., Dallas, Tex.

AMERICAN VISCOSE CORP., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C., Henry K. Kelly, Mgr.

ANHEUSER-BUSCH, INC., St. Louis, Mo. S. E. Sales Mgr. Corn Products Dept.: Charles H. Conner, Jr., 607 Johnston Bldg., Charlotte 2, N. C.

ARMSTRONG CORK CO., 33 Norwood Place, Greenville, S. C. J. V. Ashley, Dist. Mgr., Tel. Greenville 3-5302.

ASHWORTH BROS., INC., Fall River, Mass. Sou. Sales and Service Office and Repair Shop, 1201 S. Graham St., Charlotte, N. C., J. M. Reed, Sou. Mgr., T. F. Hart, Sales; Mfg. Plant, Sales Office and Repair Shop, Laurens Rd., Greenville, S. C., A. E. Johnson, Jr., Mgr.; Sales Office and Repair Shop, 357 Forrest Ave., N.E., Atlanta, Ga., J. E. Seacord, Jr., Mgr.; Texas Repr.: Textile Supply Co., Dallas, Tex.

ATKINSON, HASERICK & CO., 211 Congress St., Boston, Mass. Sou. Office and Warehouse, 1639 W. Morehead St., Charlotte, N. C., Tel. 5-1640. Sou. Agt., F. E. Bozeman.

ATWOOD DIVISION, Universal Winding Co., P. O. Box 1605, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agent, Frederick Sails.

BAHAN TEXTILE MACHINERY CO., Greenville, S. C.

BAHNSON CO., THE, 1001 Marshall St., Winston-Salem, N. C.; 886 Drewery St., Atlanta, Ga.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARRELED SUNLIGHT (U. S. Gutta Percha Paint Co.), Providence, R. I. C. L. Park, Sou. Dist. Mgr., P. O. Box 184, Tucker, Ga.; Thomas C. Roggenkamp, 435 Wakefield Dr., Charlotte, N. C.; L. K. Palmer, P. O. Box 1123, Spartanburg, S. C.; Alfred G. Malone, P. O. Box 3763, Orlando, Fla.; P. R. Singletary, 3384 Mathieson Rd., N.E., Atlanta, Ga.; Edward J. O'Brien, Jr., P. O. Box 675, Silver Spring, Md.

BEST & CO., EDWARD H., 222-224 Purchase St., Boston, Mass. Sou. Repr.: W. C. Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; William J. Moore, P. O. Box 1970, Greenville, S. C., Phone Greenville 5-4820.

BIBERSTEIN & BOWLES, INC., Charlotte 4, N. C.

BOOTH CO., BENJAMIN, Allegheny Ave. and Janney Sts., Philadelphia 34, Pa. Sou. Sales Agt.: Oliver D. Landis, Inc., 718 Queens Road, Charlotte 7, N. C.

BORNE SCRYMSER CO., Works and Offices, 632 S. Front St., Elizabeth, N. J. Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgrs.: Willard E. Smith, Charlotte, N. C.; Chas. G. Kelley, Charlotte, N. C. Repr.: John Ferguson, LaGrange, Ga.

BULLARD CLARK CO., THE, Charlotte, N. C., and Danielson, Conn. E. H. Jacobs Southern Division Plant, Warehouse and Office, Box 3096, South Blvd., Charlotte, N. C. Sou. Exec., Edward Jacobs Bullard, Pres., and C. W. Cain, V-Pres. and Gen. Mgr., both of Charlotte, N. C. Sou. Service Engineers: S. B. Henderson, Box 133, Greer, S. C.; L. L. Froneberger, Jr., 523 Woodland Dr., Greensboro, N. C.; Ralph M. Briggs, Jr., 399 Lofton Rd., N.W., Atlanta, Ga.; Frank W. Beaver, Concord, N. C.; Bill Heacock, 315 Popular St., Sylacauga, Ala.; L. J. McCall, 536 E. Faris Rd., Greenville, S. C.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. Plants: Chattanooga-Knoxville-Nashville. Sales and Service: C. A. Schier, A. S. Burkart, W. A. Bentel, W. J. Kelly, Jr., George S. McCarty, A. J. Kelly, J. A. Burkart, D. H. Gunther, T. A. Martin, E. F. Jurczak, Lawrence Newman, C. V. Day, care Burkart- Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, John T. Pigg, J. T. Hill, G. L. Vivrett, care Burkart-Schier Chemical Co., Nashville, Tenn.; Phil H. Swann, George Garner, L. W. Maddux, care Burkart-Schier Chemical Co., Knoxville, Tenn.; James A. Brittain, 3526 Cliff Road, Birmingham, Ala.; O. G. Edwards, P. O. Box 1181, Tryon, N. C.

CALGON, INC., 323 Fourth Ave., Pittsburgh, Pa. Sou. Offices: J. W. Eshelman

& Co., Inc. 2625 Sixth Ave., South, Birmingham 5, Ala.; J. W. Eshelman & Co., Inc., 314 Wilder Bldg., Charlotte 2, N. C.

CARBOMATIC CORP., 24-81 47th St., Long Island City 3, N. Y. Sou. Branch: Textile Specialty Co., Greensboro, N. C.; New England Repr.: H. E. Linderson, 35 Westminister St., Providence, R. I. Phone: Jackson 1-7075.

CAROLINA BELTING CO., 26 Augusta St., Greenville, S. C.

CAROLINA LOOM REED CO., 1000 S. Elm St., Greensboro, N. C.

CAROLINA MACHINERY CO., INC., Morris Field, Charlotte, N. C. John McLaughlin, Mgr.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C., Division of A. B. Carter, Inc., Gastonia, N. C. Sou. Repr.: R. D. Hughes Sales Co., 1812 S. Main St., Dallas, Tex.

CHARLOTTE CHEMICAL LABORATORIES, INC., Charlotte, N. C. Peter S. Gilchrist, Jr.

CIBA CO., INC., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON FOODS INC., Clinton, Iowa. R. C. Rau, S. E. Mgr., Clinton Foods Inc. (Corn Refining Div.), 118 Mortgage Guarantee Bldg., Atlanta 3 Ga., Tel. Walnut 8998; Boyce L. Estes, Atlanta Office; Grady Gilbert, Box 342, Phone 3192, Concord, N. C.; J. Frank Rogers, 900 Woodside Bldg., Phone 2-8022, Greenville, S. C. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Forrest Abbott Co., 117 E. Court St., Greenville, S. C.; Atlanta Service Warehouse, Atlanta, Ga.; Industrial Chemicals, Roanoke Rapids, N. C.

COCKER MACHINE & FOUNDRY CO., Gastonia, N. C.

COLE MFG. CO., R. D., Newnan Ga.

COMMERCIAL FACTORS CORP., 2 Park Ave., New York, N. Y.

CORN PRODUCTS SALES CO., 17 Battery Place, New York City. Corn Products Sales Co., Southeastern Bldg., Greensboro, N. C., W. Rouse Joyner, Mgr.; Corn Products Sales Co., Woodside Bldg., Greenville, S. C., J. Alden Simpson, Mgr.; Corn Products Sales Co., Hurt Bldg., Atlanta, Ga.; W. H. Adcock, Mgr.; Corn Products Sales Co., Dermon Bldg., Memphis, Tenn., F. C. Hassman, Mgr.

CRABB & CO., WILLIAM, P. O. Box 95, Black Mountain, N. C.

CROMPTON & KNOWLES LOOM WORKS, Worcester, Mass. Sou. Offices and Plant: 1505 Hutchinson Ave., Charlotte, N. C.

CURTIS & MARBLE MACHINE CO., 7. Cambridge St., Worcester, Mass. Sou. Reprs.: Greenville, S. C., 1000 Woodside Bldg., W. F. Woodward, Tel. 2-7131; Dallas, Tex., O. T. Daniels, care Textile Supply Co.

CUTLER-HAMMER, INC., 315 N. 12th St., Milwaukee 1, Wis. Sou. Offices: 714 Spring St., N.W., Atlanta, Ga., G. E. Hunt, Mgr.; 2014 Stratford Ave., Charlotte 5, N. C., F. A. Miller, Jr.; 1331 Dragon St., Dallas 2, Tex., E. K. Anderson, Mgr.; 2415 San Jacinto St., Houston 4, Tex., P. G. Green, Mgr.; 508 N. Main St., Midland, Tex., T. D. Sevar; 833 Howard Ave., New Orleans 12, La., P. C. Hutchinson, Mgr.; 625 Park Lake Ave., Orlando, Fla., W. T. Roundy.

DANIELS, INC., C. R. 4900 Wetheredsville Rd., Baltimore 16, Md. Sou. Office. C. R. Daniels, Inc., 121 East Third St., Charlotte, N. C. Baskets, Hampers, Trucks, Canvas Bags, Tarpaulins and other canvas products.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Reprs.: John E. Humphries, P. O. Box, 834, Greenville, S. C.; John H. O'Neill, P. O. Box 720, Atlanta, Ga.; James H. Carver, Box 22, Rutherfordton, N. C.; Crawford Rhymer, Box 2261, Greenville, S. C.

DAVIS MFG. CO., INC., FRANK, 1139 Maine St., Pawtucket, R. I., Sou. Reprs.: John P. Batson, P. O. Box 841, Greenville, S. C.; R. E. L. Holt, Jr., P. O. Box 1474, Greensboro, N. C.

DAYTON RUBBER CO., THE, Dayton 1, Ohio. Textile Accessory Reprs.: J. O. Cole, P. O. Box 846, Greenville, S. C.; William L. Morgan, P. O. Box 846, Greenville, S. C.; Thomas W. Meighan, 1364 Middlesex Ave., N.E., Atlanta, Ga.; T. A. Sizemore, 526 Grove St., Salisbury, N. C.; E. L. Howell P. O. Box 846, Greenville, S. C.; Kenneth K. Karns, P. O. Box 846, Greenville, S. C. V-Belt Reprs.: J. M. Hubbard, Dist. Mgr., The Dayton Rubber Co., 240 Spring St., N.W., Atlanta, Ga.; F. G. Tanner, 1549 Marianna St., Memphis, Tenn.; D. C. Greer, The Dayton Rubber Co., 240 Spring St., N.W., Atlanta, Ga.; K. C. Sparks, P. O. Box 2368, Birmingham, Ala.; W. E. Wayland 515 Third Ave., North, Jacksonville Beach, Fla. Textile Jobbers: Greenville Textile Supply Co., Greenville Belting Co., Greenville, S. C.; Charlotte Supply Co., Charlotte, N. C.; Odell Mill Supply Co., Greensboro, N. C.; Young & Vann Supply Co., Birmingham, Ala.; Industrial Supply Inc., LaGrange, Ga.; Textile Supply Co., Dallas, Tex.

DILLARD PAPER CO., Greensboro, Wilmington, Charlotte, N. C.; Greenville, S. C.; Roanoke, Va.; Bristol, Va.-Tenn.

DIXIE LEATHER CORP., Albany, Ga. Direct Factory Reprs.: Ed Pickett, Jr., 124 Broadway, Birmingham, Ala.; D. N. Patterson, P. O. Box 176, Greenville, S. C.; W. F. McAnulty, 1240 Romany Rd., Charlotte 3, N. C.; C. E. Dietzel, 4054 Given St., Memphis 17, Tenn.; H. L. Cook, 3330 Elm St., Dallas, Tex.; D. I. McCready, P. O. Box 7701, Pittsburgh 15, Pa. Factory Branch, Preston & Filbert Sts., Philadelphia, Pa., R. W. Davis, Mgr. Warehouses at Battey Machinery Co., Rome, Ga.; Pye-Barker Supply Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; McGowin-Lyons Hardware Co., Mobile, Ala.; Ross Wadick Supply Co., New Orleans, La.; Peerless Supply Co., Shreveport, La.; Weaks Supply Co., Monroe, La.; Textile Mill Supply Co., Charlotte, N. C.; Hugh Black, Greenville, S. C.; Cameron & Barkley Co., Savannah, Ga., Tampa, Fla., Jacksonville, Fla., Miami, Fla., and Charleston, S. C.; Keith Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Industrial Supplies, Inc., Jackson, Miss.; Taylor Parker Co., Inc., Norfolk, Va.; Industrial Supply, Richmond, Va.; Barker Jennings Hardware Corp., Lynchburg, Va.; Noland Co., Roanoke, Va. Factory Branch: 3330 Elm St., Dallas, Tex.
DIXIE TEXTILE MACHINE CO., P. O. Box 875, Greensboro, N. C. C. E. Oliver, 502 Unity St., Fort Mill, S. C.

DIXON LUBRICATING SADDLE CO., Bristol, R. I. Sou. Reprs.: R. E. L. Holt, Jr., and Associates, P. O. Box 1474, Greensboro, N. C.; J. W. Davis, Manufacturer's Agent, P. O. Box 745, Columbus, Ga.

DOLGE CO., THE C. B., Westport, Conn. Sou. Reprs.: L. G. Strickland, R. F. D. 4, Durham, N. C.; George E. Bush, 2404 Belvedere Ave., Charlotte 2, N. C. New England: John H. Barlow, 43 Potters Ave., Providence, R. I.

DRAPER CORP., Hopedale, Mass. Rhode Island Warp Stop Equipment Branch, Pawtucket, R. I. Sou. Offices and Warehouses, Spartanburg, S. C., Clare H. Draper, Jr.; Atlanta, Ga., 242 Forsyth St., S.W., W. M. Mitchell.

DRONSFIELD BROS., Olhdam, England; Boston, Mass.

DU PONT DE NEMOURS & CO., INC., E. I., Organic Chemicals Dept., Main Office, Wilmington, Del. Sou District: 427 W. Fourth St., Charlotte 2, N. C. R. D. Sloan, Mgr.; J. D. Sandridge, Asst. Mgr.; E. P. Davidson, Asst. Mgr. Technical; J. V. Killheffer, Laboratory Mgr.; W. I. Pickens, Sales Correspondent. Salesmen: L. N. Brown, H. B. Constable, H. H. Field, M. D. Haney, Jr. Technical Demonstrators: J. J. Barnhardt, Jr.. Dr. I. F. Chambers, J. T. Hasty, Jr., W. R. Ivey, G. R. Turner, H. F. Rhoads, F. B. Woodworth, N. R. Vieira. The address for all of the above gentlemen is: E. I. du Pont de Nemours & Co., Inc., P. O. Box 1909, Charlotte, N. C. Salesmen: John L. Dabbs, Jr., P. O. Box 705, Statesville, N. C.; T. R. Johnson, P. O. Box 876, Greenville, S. C.; J. A. Kidd, 1014 Rotary Drive, High Point, N. C.; J. T. McGregor, Jr., P. O. Box 1080, Greensboro, N. C. Atlanta Office: 1206 Spring St., N.E., Phone Hemlock 1904, A. B. Owens, Mgr. Reprs.: W. F. Crayton, Adam Fisher, Jr., J. H. Stradley, P. L. Cowart, J. E. Dempsey, A. C. Sutherland, Jr., A. V. Kerr, J. W. Billingsley, A. R. Williams, Jr., M. S. Williams, Jr., L. A. Burroughs. Chattanooga, Tenn., C. H. Asbury; Knoxville, Tenn., M. S. Morrison, Jr.; Columbus, Ga., A. W. Pickens; Memphis, Tenn., J. A Verhage.

EATON & BELL, 904 Johnston Bldg., Charlotte, N. C.; 753 Munsey Bldg., Washington, D. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou Plant, 2437 Lucena St., Charlotte, N. C., George A. Field, Mgr.; Arthur W. Harris, Harris Mfg. Co., 443 Stonewall St., S.W., Atlanta, Ga.; W. H. Gibson, 1743 McKinley Ave., San Antonio, Tex.; R. F. 'Dick'' Coe, P. O. Box 221, Greensboro, N. C.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C., and Allen Bldg., Greenville, S. C.; S. R. and V. G. Brookshire.

EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

FAIRBANKS CO., THE, 393 Lafayette St., New York 3, N. Y. Factory and District Office: 202 Division St., Rome, Ga. Sou. Reprs.: A. A. Austin, 105 Briercliff Circle, N.E.. Atlanta, Ga.; M. A. Chalverus, 815 So. Lee St., Fitzgerald, Ga.; H. M. Sims. P. O. Box 6031, Charlotte, N. C.; H. M. Summerell, 1808 Beverly Dr., Charlotte, N. C. Distributors in all principal cities.

FERGUSON GEAR CO., Gastonia, N. C.

FOSTER MACHINE CO., Westfield, Mass. Sou. Offices, 509 Johnston Bldg., Charlotte, N. C.

GASTONIA BRUSH CO., Gastonia, N. C.

GASTONIA MILL SUPPLY CO., Gastonia, N. C.

GASTONIA ROLLER, FLYER & SPINDLE CO., Linwood Ave. and Second St., Gastonia, N. C. Phone 1209.

GASTONIA TEXTILE MACHINERY CO., INC., P. O. Box 351, Gastonia, N. C. Sou. Reprs.: K. G. Lytton, 1801 Hedgewood Place, Charlotte, N. C.; George Ratchford, Gastonia, N. C.

GASTONIA TEXTILE SHEET METAL WORKS, INC., Gastonia, N. C.

GENERAL COAL CO., 1215 Johnston Bldg., Charlotte 1, N. C. D. B. Smith, Sou. Sales Mgr.; F. B. Crusan, Asst. Sou. Sales Mgr. Reprs.: H. G. Thompson, Asheville, N. C.; Hugh D. Brower, Atlanta, Ga.; Frank B. Ripple, Raleigh, N. C.; B. W. Glover, Jr., Greenville, S. C.; W. A. Counts, Res. Mgr., Bluefield, W. Va.; G. E. Tate, Richmond, Va.; J. A. Basinger, Jr., Charlotte, N. C.; B. C. Bell, Jr., Service Repr., Charlotte, N. C.

GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C., S. H. Williams, Mgr.

GOSSETT MACHINE WORKS, W. Franklin Ave., Gastonia, N. C.

GRATON & KNIGHT CO., 328 Franklin St., Worcester 4, Mass. Direct Factory Reprs.: Ed Pickett, Jr., 124 Broadway, Birmingham, Ala.; D. N. Patterson, P. O. Box 176, Greenville, S. C.; W. F. McAnulty, 1240 Romany Rd., Charlotte 3, N. C.; C. E. Dietzel, 2320 Brooks Rd., Memphis 18, Tenn.; H. L. Cook, 3330 Elm St., Dallas, Tex.; D. I. McCready, 32 Highland Ave., Pittsburgh 23, Pa. Factory Branch, Preston and Filbert Sts., Philadelphia, Pa., R. W. Davis, Mgr. Warehouse stocks at: Batty Machinery Co., Rome, Ga.; Pye-Barker Supply Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; McGowin-Lyons Hardware Co., Mobile, Ala.; Ross Wadick Supply Co., New Orleans, La.; Peerless Supply Co., Shreveport, La.; Weaks Supply Co., Monroe, La.; Textile Mill Supply Co., Charlotte, N. C.; Hugh Black, Greenville, S. C.; Cameron & Barkley Co., Savannah, Ga., Tampa, Fla., Jacksonville, Fla., Miami, Fla., and Charleston, S. C.; Keith Simmons Co., Nashville, Tenn.; Lewis Supply Co., Memphis, Tenn.; Industrial Supplies, Inc., Jackson, Miss.; Taylor Parker Co., Inc., Norfolk, Va.; Industrial Supply, Richmond, Va.; Barker Jennings Hardware Corp., Lynchburg, Va.; Noland Co., Ronnoke, Va.

GREENVILLE BELTING CO., Greenville, S. C.

GULF OIL CORP. OF PA., Pittsburgh, Pa Div. Office, Atlanta, Ga. Reprs.: S. E. Owen, Jr., and C. T. Timmons, Greenville, S. C.; R. G. Burkhalter, Charlotte, N. C.; A. J. Borders, Hickory, N. C.; G. P. King, Jr., Augusta, Ga.; G. W. Burkhalter, Greensboro, N. C.; R. D. Reamer, Hendersonville, N. C.; R. L. Winchell, Raleigh, N. C.; W. A. Dotterer, Florence, S. C.; E. T. Hughes, Columbia, S. C.; C. E. Reese and R. G. Peeples, Atlanta, Ga.; R. M. Thibadeau, Macon, Ga. Div. Offices, Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Toledo, Ohio.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Offices: Atlanta, Ga., 815 Citizens and Southern National Bank Bldg., J. C. Martin, Mgr.; Charlotte, N. C., 523 W. Fourth St., E. W. Smythe, V.-Pres. and Sou. Sales Mgr.; Greenville, S. C., 1510 Woodside Bldg., W. S. Johnstone, Sales Repr.

HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

HENLEY PAPER CO. (formerly Parker Paper Co.), Headquarters and Main Warehouse, High Point, N. C.; Warehouse and Sales Divisions: Charlotte, N. C., Asheville, N. C., Gastonia, N. C. Atlanta, Ga.

HERSEY, HENRY H., 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

HOUGHTON & CO., E. F., 303 Lehigh Ave., Philadelphia 33, Pa. Sou. Reprs.: W. H. Brinkley, Gen Sales Mgr., Sou. Div. 825 W. Morehead St., Charlotte, N. C., Tel. 3-2916. Sou. Reprs.: L. L. Brooks, 506 Cedar Rock St., Pickens, S. C., Tel. 3041; J. W. Byrnes, 701 N. Jacinto St., Houston 2, Tex., Tel. Preston 7151; G. J. Reese, 546 McCallie Ave., Chattanooga, Tenn.; C. L. Elgert, 10 E. Lexington St., Baltimore 2, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 157, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 6-B, Atlanta, Ga., Tel. Cherokee 7660; P. P. Hunt, Secretarial Exchange, 902-904 Dermon Bldg., Memphis, Tenn., Tel. 37-9626; A. N. Jackson, 825 W. Morehead St., Charlotte, N. C., Tel. 3-2916; S. P. Schwoyer, P. O. Box 1507 or 302½ Otteray Drive, High Poiht, N. C., Tel. 3654; J. C. Mahaffey, Warp Size Specialist 825 W. Morehead St., Charlotte, N. C.; J. D. Brown, 825 W. Morehead St., Charlotte, N. C.

HOUGHTON TOP CO., 253 Summer St., Boston, Mass. Sou. Reprs.: James E. Taylor & Co., Liberty Life Bldg., Charlotte, N. C. Telephone: 3-3692; Long Distance 936.

HOWARD BROS. MFG. CO., 44-46 Vine St., Worcester 8, Mass. Reprs.: Harold S. Bolger, 1139-51 E. Chelten Ave., Philadelphia 38, Pa., Phone GE 8-0500; E. Jack Lawrence, 244½ Forsyth St., S.W., Box 4072, Atlanta, Ga., Phone Walnut 5250; K. McCoy Crytz, Opelika, Ala., Phone Opelika 254-J; Jack Dempsey, 219-223 S. Linwood St., Gastonia, N. C., Phone 5-5021; Charles A. Haynes, Jr, 749 Narragansett Parkway, Gaspee Plateau, Providence 5, R. I., Phone Hopkins 1-7679; Carl M. Moore, 219-223 S. Linwood St., Gastonia, N. C., Phone 5-5021; Ralph C. Shorey, 44-46 Vine St., Worcester 8 Mass., Phone 6-6207. Sou. Plants: Atlanta, Ga., and Gastonia, N. C.; Branches: Philadelphia, Pa., and Blanco, Tex.

IDEAL MACHINE CO., Bessemer City, N. C., A. W. Kincaid, Mgr.

INDUSTRIAL ELECTRONICS CORP., Newark, N. J. Reprs. in Washington, D. C.; Charlotte, N. C.; Atlanta, Ga.; Durham, N. C.; Tampa, Fla.; Birmingham, Ala.; Memphis, Tenn.; Savannah, Ga.

JACOBS SOUTHERN & NORTHERN DIV., E. H. (The Bullard Clark Co.), Charlotte, N. C., and Danielson, Conn. Sou. Plant, Warehouse and Office, P. O. Box 3096, South Blvd., Charlotte, N. C. Sou. Exec.: Edward Jacobs Bullard, Pres., and C. W. Cain, V-Pres. and Gen. Mgr., both of Charlotte, N C. Sou. Service Engineers: S. B. Henderson, Box 133, Greer, S. C.; L. L. Proneberger, Jr., 523 Woodland Dr., Greensboro, N. C.; Ralph M. Briggs, Jr., 399 Lofton Rd., N. W., Atlanta, Ga.; Frank W. Beaver, Concord, N. C.; Bill Heacock, 315 Popular St., Sylacauga, Ala.; L. J. McCall, 536 E. Faris Rd., Greenville, S. C.

JARRETT CO., CECIL H., Newton, N. C.

JENKINS METAL SHOPS, INC., Gastonia, N. C.

JOHNSON, CHARLES B., Paterson, N. J. Sou. Repr.: T. E. Lucas Associates, Inc., 117 E. Third St., Charlotte, N. C.

KEARNY MFG. CO., INC., Kearny, N. J. Sou. Office, 218 Pendleton St., Greenville, S. C. Phone: Greenville 3-8033. Sou. Reprs.: Mahon & Bone Co., P. O. Box 345, Greensboro, N. C., Tel. Greensboro 3-8307; C. C. Withington, 12 Clarendon Ave., Greenville, S. C., Tel. Greenville 4-150-W; William P. Russell, P. O. Box 778, Atlanta 1, Ga., Tel. Raymond 7-618.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C. Sou. Warehouses: Greenville, S. C., Charlotte, N. C. Sou. Reprs.: C. C. Switzer, Greenville, S. C.; E. Hays Reynolds, Greenville, S. C.; Luke J. Castile, 3015 Forest Park Dr., Charlotte, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.; James C. Jacobs, 779 Maple St., Spartanburg, S. C.

KIMMEL MACHINERY CO., LEON, P. O. Box 1316, New Spartanburg Highway, Greenville, S. C.

LAMBETH ROPE CORP., New Bedford, Mass. Frank Burke, Phone 3-4287, Charlotte, N. C.; J. P. O'Leary, Phone 4082-M, Greenville, S. C.; Stuart E. Campbell, Phone 2753, Griffin, Ga.

LANDIS, INC., OLIVER D., 718 Queens Rd., Charlotte 7, N. C. P. W. Coleman, Box 1393, Greenville, S. C.

LAUREL SOAP MFG. CO., INC., 2607 E. Tioga St., Philadelphia, Pa. Sou. Repr.; A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.

LEWIS MACHINERY CO., W. D., P. O. Box 826, Gastonia, N. C.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

M B MFG. CO., INC., 1060 State St., New Haven 11, Conn. Sou. Reprs.: Oliver D. Landis, 718 Queens Rd., Charlotte 7, N. C., for the States of North and South Carolina; R. B. Dorman, 1000 Peachtree St., Atlanta, Ga., for the States of Alabama and Georgia.

MANHATTAN RUBBER MFG. DIVISION OF RAYBESTOS-MANHATTAN, INC., THE, Passiac, N. J. Factory: North Charleston, S. C. Sou. Distributors: Alabama—Teague Hdw. Co., Montgomery; Anniston Hdw. Co., Anniston; Long-Lewis Hdw. Co., Birmingham; Gadsden Hdw. Co., Gadsden. Georgia-American Mchy. Supply Co., Atlanta; Bibb Supply Co., Macon. Kentucky—Graft-Pelle Co., Louisville. North Carolina—Charlotte Supply Co., Charlotte; Dillon Supply Co., Raleigh, Durham and Rocky Mount; Kester Mchy. Co., Winston-Salem, High Point and Burlington. South Carolina—The Cameron & Barkley Co., Charleston; Carolina Supply Co., Greenville; Columbia Supply Co., Columbia; Montgomery & Crawford, Inc., Spartanburg; Sumter Mchy. Co., Sumter; Tennessee—Chattanooga Belt & Sup. Co., Chattanooga; Summers Hdw. & Sup. Co., Johnson City; Power Equipment Co., Knoxville; Buford Bros., Inc., Nashville; Lewis Supply Co., Memphis. Virginia—Industrial Supply Corp., Richmond.

MARQUETTE METAL PRODUCTS CO., THE, 1145 Galewood Drive, Cleveland 10, O. Sou. Reprs.: C. H. White, 1229 Pamlico Drive, Greensboro, N. C.; W. P. Russell, Box 778, Atlanta, Ga.; Byrd Miller, 908 Woodside Bldg., Greenville, S. C.

MARTHA MILLS DIVISION, Silvertown, Ga. Sou. Sales Agents: Walter T. Forbes Co., Chattanooga, Tenn.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga. N. C. Repr.: Walter S. Coleman, P. O. Box 722, Salisbury, N. C.; S. C. Repr.: James P. Coleman, P. O. Box 1351, Greenville, S. C.; Ga., Ala. and Tenn. Repr.: R. L. Holloway, P. O. Box 4334, Atlanta, Ga.

MEDLEY MFG. CO., LTD., 400 Thirty-second St., Columbus, Ga. L. H. Morrison and Burrel C. Cole, general partners; E. P. Waite, chief engineer; C. E. Hett, Jr., Columbus Div. Repr.; C. R. Blakeney, Kershaw, S. C., Carolina Repr.

MERROW MACHINE CO., THE, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

METAL FINISHING CORP., 1733 Statesville Ave., Charlotte, N. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Repr.: (including Canada) C. E. Herrick, 44 Franklin St., Providence, R. I.; European Repr.: Mellor, Bromley & Co., Ltd., Liecester, England.

MILNE & CO., A., 745 Washington St., N. Y. Harold F. Dicks, Sou. Mgr., 735 Spring St., N.W., Atlanta, Ga.

MOORESVILLE IRON WORKS, P. O. Box 246, Mooresville, N. C.

NATIONAL ANILINE DIVISION, Allied Chemical & Dye Corp., Gen. Office, 40 Rector St., New York 6, N. Y. Julian T. Chase, Res. Mgr. Kenneth Mackinzie, Asst. to Res. Mgr., 201 W. First St., Charlotte, N. C. Salesmen: Wyss L. Barker, Harry L. Shinn and J. Reese Daniel, 201 W. First St., Charlotte, N. C.; Geo. A. Artope and R. F. Morris, Jr., Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rogers and Chas. A. Spratt, 1202 James Bldg., Chattanooga 2, Tenn.; J. K. Boykin, American Savings Bank Bldg., Atlanta, Ga.; W. H Jackson, 213 Columbus Interstate Bldg., Columbus, Ga.; A. Jones, Jr., 408 Cotton Exchange Bldg., New Orleans, La.; Henry A. Cathey, 403 E. Franklin St., Room 210, Richmond, Va.

NATIONAL RING TRAVELER CO., Philip C. Wentworth, Treas., 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Gen. Mgr., L. E. Taylor, Pawtucket, R. I. Sou. Reps.: J. Kenneth Sumner, P. O. Box 272, Atlanta, Ga.; Donald C. Creech, Charlotte, N. C.; Frank S. Beacham, P. O. Box 281, Honea Path, S. C.; W. Harry King, P. O. Box 272, Atlanta, Ga.; M. L. Johnston, 131 W. First St., Charlotte, N. C.

N.Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York 17, N. Y. Sou. Office and Warehouse: 634 S. Cedar St., Charlotte, N. C., Phone 3-7191. Falls L. Thomason, Sou. Mgr., 634 S. Cedar St., Charlotte, N. C.; Carrol A. Campbell, Mgr. Loom Lubrication Div., P. O. Box 782, Greenville, S. C. Sales and Service Engineers: Fred W. Phillips, P. O. Box 782, Greenville, S. C.; Jas. A. Sorrells, Jr., P. O. Box 576, Charlotte 1, N. C.; W. C. Taylor, P. O. Box 1161, Greensboro, N. C.; Julian T. Pool, P. O. Box 316, LaGrange, Ga. Warehouses: Charlotte, N. C., Greensboro, N. C., Greenville, S. C., Atlanta, Ga., Columbus, Ga., Birmingham, Ala.

NORCROSS CORP., 247 Newtonville Ave., Newton, Mass. Sou. Office: 123 N. Poplar St., Charlotte, N. C. Ralph Howell, Sou. Mgr.

NORLANDER-YOUNG MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

NORRIS BROS., Greenville, S. C.

NORTH, INC., FRANK G., P. O. Box 123, Sta. A, Atlanta, Ga., Tel. Raymond 2196; P. O. Box 92, Marietta, Ga., Tel. 1509. Reprs.: Chas. B. Elliott, Box 433, Griffin, Ga., Tel. 4014; Raymond J. Payne, Box 6000, Charlotte 7, N. C., Tel. 6-2025; A. V. McAlister, Box 324, Greenwood, S. C., Tel. 7668; J. C. Alexander, Box 56, Spartanburg, S. C., Tel. 5568; Frank G. North, Pres., and Mark W. Mayes, V.-Pres., Atlanta, Ga.

PABST SALES CO., 221 N. LaSalle St., Chicago 1, Ill. Sou. Repr.: C. H. Patrick, P. O. Box 300, Salisbury, N. C., Phone 1066. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PARKS-CRAMER CO., Plants at Fitchburg, Mass., and Charlotte, N. C. Atlanta Office, Bona Allen Bldg.

PEASE & CO., J. N., 119½ E. Fifth St., Charlotte, N. C.

PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City; Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 806 Bona Allen Bldg., Atlanta 3, Ga.; J. H. Almand, Glenn M. Anderson, W. J. Kirby, Atlanta Office: C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, L. C. Harmon, Jr., 902 Montgomery Bldg., Spartanburg, S. C.; T. H. Nelson, Charlotte, N. C.; W. R. Brown, 1214 Liberty National Bank Bldg., Dallas, Tex. Stocks carried at convenient points.

PHILADELPHIA QUARTZ CO., Public Ledger Bldg., Philadelphia 6, Pa. Sou. Reprs.: F. Homer Bell, 2624 Forest Way, N.E., Atlanta 5, Ga.; Richard D. Greenway, 1308 Kings Drive, Charlotte 3, N. C. Textile Distributors: Southern States Chemical Co., Atlanta, Ga.; F. H. Ross & Co., Inc., Southern States Chemical Co., Charlotte, N. C.; Southern States Chemical Co., Greenville, S. C.; Marlow-Van Loan Corp., High Point, N. C.; Taylor Salt & Chemical Co., Norfolk, Va.

PIEDMONT PROCESSING CO., Belmont, N. C.

PILOT LIFE INSURANCE CO. Jos. F. Freeman, Vice-President in Charge of Group Department, Greensboro, N. C.

PNEUMAFIL CORP., 2516 Wilkinson Blvd., Charlotte, N. C.

PROCTOR & SCHWARTZ, INC., 7th Ave. and Tabor Road., Philadelphia 20, Pa. Sou. Office: Wilder Bldg., Charlotte, N. C.

RAGAN RING CO., Atlanta, Ga. N. C. Repr.: John H. Foard, Box 574, Newton, N. C.

RAY CHEMICAL CO., Charlotte, N. C.

REINER, INC., ROBERT, 550-64 Gregory Ave., Weehawken, N. J. Sou. Reprs.: John Klinck, 304 W. Forest Ave., North Augusta, S. C., and H. Walter Fricke, Box 9155, Charlotte, N. C. (Hosiery Machines).

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305. C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1589, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Rd., Winston-Salem, C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.

RICE DOBBY CHAIN CO., Millbury, Mass. Sou. Reprs.: R. E. L. Holt, Jr., Associates, P. O. Box 1474, Jefferson Bldg., Greensboro, N. C.

ROBERT & CO. ASSOCIATES, Atlanta, Ga.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office and Supply Depot: 1623 N. Tryon St., Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

ROYCE CHEMICAL CO., Carlton Hill, N. J. Sou. Repr.: Irving J. Royce, 2008 Belvedere Ave., Charlotte, N. C.

SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., F. Robbins Lowe, Sou. Agt.; H. M. Walsh, J. W. Hubbard, Fletcher S. Culpepper, Selling Agts.: Atlanta, Ga.; 161 Marietta St.: Miles A. Comer, Herman J. Jones, Selling Agts.; Greenville, S. C., Woodside Bldg.: Chas S. Smart, Jr., Perry Clanton, Selling Agts.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C., A. T. Hanes, Jr., Mgr.

SARGENT'S SONS CORP., C. G., Graniteville, Mass. Sou. Reprs.: W. S. Anderson, Carolina Specialty Co., Charlotte 7, N. C.; Philadelphia Repr.. F. E. Wasson, 519 Murdoch Rd., Philadelphia 19, Pa.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga., Vasser Woolley, Pres. Reprs.: John R. Seydel, E. A. Scott, A. Pate, Atlanta, Ga.; W. L. Whisnant, Concord, N. C. Northern and Export Repr.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.; Welling LaGrone, 13 W. Fairview Ave., Greenville, S. C.

SINCLAIR REFINING CO., Dist. Office, 573 W. Peachtree St., Atlanta, Ga., F. W. Schwettmann, Mgr., Lubricating Sales; G. R. Dyer, National Accounts Repr.; Area Offices: Atlanta, Ga., Birmingham, Ala., Jacksonville, Fla., Miami, Fla., Tampa, Fla., Columbia, S. C., Charlotte, N. C., Nashville, Tenn., Jackson, Miss., Montgomery, Ala., Raleigh, N. C., and Macon, Ga. Industrial Lubricating Engineers: R. O. Miller, 15 Miller Ave., Concord, N. C.; J. O. Holt, 1220 Dixie Trail, Raleigh, N. C.; W. H. Lipscomb, 414 McIver St., Greenville, S. C.; R. A. Smith. 121 Island Home Blvd., Knoxville, Tenn.; C. C. Nix, 1926 Sixteenth Ave., So., Birmingham, Ala.; L. M. Kay, 332 Eighth St., N.E., Atlanta, Ga., and R.H. Terrell, P. O. Box 131, Lakeland, Fla.

SINGLETON & SONS, RUSSELL A., Blanco, Tex. Sou. Reprs.: R. T. Hamner, P. O. Box 267, Gastonia, N. C.; Ralph Gossett, Jr., Ralph Gossett Mill Supplies, 8 S. Church St., Greenville, S. C.; James W. Heacock, 609 Hillcrest Dr., Talladega, Ala.; Paul S. Jones, 208 Lane Circle, LaGrange, Ga.; Phil Morgan, 401 S. Lewis St., LaGrange, Ga.; Julian W. Still, 1708 Peachtree St., N.E., Apt. 20, Atlanta, Ga.

SIRRINE CO., J. E., Greenville, S. C.

SLIP-NOT BELTING CORP., Kingsport, Tenn., Otto Cox, Sales Mgr., P. O. Box 3061, Phone 3-1365, Greensboro, N. C.; E. S. Meservey, Ga. and Ala., 215 N. Candler St., Decatur, Ga., Phone Dearborn 4523; G. H. Spencer, P. O. Box 1297, Gastonia, N. C., part N. C.; Jack M. Alexander, part S. C., N. C., Va., Box 1623, Phone 7777, Charlotte, N. C.; O. L. "Blackie" Carter, part S. C., Box 2206, Phone 5-2111, Greenville, S. C.; T. E. Doane, part Tenn., Northern Ala., Ky., W. Va., Box 44, Phone 3100, Kingsport, Tenn.; John R. Youngblood, part N. C., Va., Maryland, Pa. and N. J., Phone 284, 1012 St. David St., Tarboro, N. C.

SMITH & SON, E. E. Gastonia, N. C.

SOLVAY SALES DIVISION, ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. Sou. Branch: 212 S. Tryon St., Charlotte, N. C.; Woodward Allen, Branch Mgr., H. W. Causey, Asst. Branch Mgr. Sou. Reprs.: Earl H. Walker, High Point, N. C.; Richard Hoyt, 1216 Edgewood Ave., Jacksonville, Fla.

SNAP-ON TOOLS CORP., General Offices: 8046—28th Ave., Kenosha, Wis. Branches at: 380 Techwood Dr., N.W., Atlanta, Ga., Br. Mgr., C. M. Wendell; 1209 E. 25th St., Baltimore 18, Md., R. C. Lapp, Br. Mgr.; 915 S. Clarkson St., Charlotte 6, N. C., G. M. Weitz, Br. Mgr.; 605 E. McMillan St., Cincinnati 6, Ohio, H. E. Gage, Br. Mgr.; 2932 Commerce St., Dallas 1, Tex., C. C. Boutwell, Br. Mgr.; 1602 Walnut St., Jacksonville 6, Fla., A. B. Woodham, Br. Mgr.; 1040 Camp St., New Orleans 13, La., L. G. Melton, Br. Mgr.; 1617 W. Broad St., Richmond 20, Va., C. F. Wenderoth, Br. Mgr.

SOMERVILLE-SEYBOLD DIVISION of HENLEY PAPER CO., 700 Murphy Ave., S.W., Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN BELTING CO., Offices and Factory, 236 Forsyth St., S.W., Atlanta, Ga., Tel. WAlnut 7221. Ingram Dickinson, Gen. Mgr., 158 W. Wesley Rd., N.W., Atlanta, Ga., Tel. CHerokee 2405. Reprs.: J. Clyde Aycock, 1915 Dodson Dr., S.W., Atlanta, Ga., Tel. AMherst 1142; Albert P. Mauldin, 1736 Graham St., S.W., Atlanta, Ga., Tel. RAymond 2927; Ed. G. Merritt, 542 Peachtree Battle Ave., N.W., Atlanta, Ga., Tel. CHerokee 4294; Sankey C. Smith, 2526 Delwood Dr., N.W., Atlanta, Ga., Tel. CHerokee 3265. S. C. Reprs.: John H. Riley, 3015 Monroe St., Columbia, S. C., Tel. 8804. N. C. Repr.: Mason H. Blandford, 713 S. Neil St., Gastonia, N. C., Tel. 5-1594. N. E. Repr.: Chas. K. Dean, 91 Bay State Rd., Boston 15, Mass., Tel. Kenmore 2-6920.

SOUTHERN ELECTRIC SERVICE CO., Charlotte, Greensboro, N. C.; Greenville, Spartanburg, S. C.

SOUTHERN EQUIPMENT SALES CO. (N. C. Equipment Co.), Charlotte, N. C.

SOUTHERN SHUTTLES DIVISION, Steel Heddle Mfg. Co., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; W. N. Dulaney, Asst. Southeastern Mgr. Sou. Reprs.: L. A. Dillon, 815 Third St., Durham, N. C.; H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Rt. 5, Greenville, S. C.; Walter P. Hope, 1160 Tate Drive, Columbus, Ga.

STANDARD MILL SUPPLY, INC., 2319 Hutchinson Ave., Charlotte, N. C. A. Benson Davis, V-Pres.

STANLEY WORKS, THE, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa., Tel. Rittenhouse 9971; G. R. Douglas, 707 Columbian Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3813 General Taylor St., New Orleans 15, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 209 Hubbard St., San Antonio 2, Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C .,Tel. 3-7015; J. A. Dickson, P. O. Box 390, 112 Bales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 10 Seminole Dr., Greenville, S. C., Tel. 3-5932.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmermann, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

STERLING RING TRAVELER CO., 101 Lindsay St.. Fall River, Mass. Sou. Reprs.: M. H. Cranford, 135 Walnut St., Chester, S. C.; D. R. Ivester, Clarkesville, Ga.; T. B. Farmer, Box 150, Langley, S. C.

STODGHILL & CO., Atlanta, Ga.

TERRELL MACHINE CO., THE, Charlotte, N. C. E. A. Terrell, Pres., W. S Terrell, Sales Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principal cities Lubrication Engineers: P. C. Bogart, Norfolk, Va.; W. H. Goebel, Roanoke, Va.; F. M. Edwards, Raleigh, N. C.; W. P. Warner, Greensboro, N. C.; C. W. Meadors, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Columbia, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr., Birmingham, Ala.; J. E. Buchanan, Munsey Bldg., Baltimore, Md.; G. W. Wood, Charlotte, N. C.; J. H. Murfee, Greensboro, N. C.; G. B. Maupin, Greensboro, N. C.; W. T. Allen, Greensboro, N. C.; C. T. Hardy, Durham, N. C.; J. G. Loudermilk, Atlanta, Ga.; A. C. Evans, Macon, Ga.; J. S. Sammons, Birmingham, Ala.; J. M. Malone, Montgomery, Ala.; H. E. Meunier, Charlotte, N. C.; C. B. Fischer, Goldsboro, N. C.

TEXTILE APRON CO., East Point, Ga.

TEXTILE SHOPS, THE, Spartanburg, S. C. E. J. Eaddy.

THORNBURG MACHINE WORKS, INC., P. O. Box 186, Dallas, N. C. C. O. Thornburg and F. B. McDonald.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. District Office: 3119 S. Blvd., Charlotte 3, N. C., K. M. Slocum, Dist. Mgr., Tel. Charlotte 2-3063. Sales Reprs.: R. C. Cook, 1317 Orchard Rd., Richmond 21, Va., Tel. Richmond 84-0804; E. O. Eagle, 620 Joyner St., Greensboro, N. C., Tel. Greensboro 6291; John S. Barnett, Jr., 2 Rodney Ave., Greenville, S. C., Tel. Greenville 3-7128.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Office and Sales Room: 1503 Augusta Rd., Greenville, S. C. Sou. Reprs.: William P. Vaughan and Wm. H. Rose, P. O. Box 1048, Greenville, S. C.; Oliver B. Land, P. O. Box 1187, Athens, Ga.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNITED STATES TESTING CO., INC., 1415 Park Ave., Hoboken, N. J. Sou. Branches: United States Testing Co., Inc., 198 S. Main St., Memphis, Tenn., Tel. Memphis 38-1246, manager, S. C. Mayne; 1700 Cotton Exchange Bldg., Dallas, Tex., Tel. Prosp. 2654, manager, S. C. Mayne.

UNIVERSAL WINDING CO., P. O. Box 1605, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agts.: R. M. Mauldin and D. M. Dunlap; 903 Whitehead Bldg., Atlanta, Ga., Agt. J. W. Stribling.

VALENTINE CO., J. W., 612 S. Main St., Winston-Salem, N. C.; Box 278 Salem Station, Winston-Salem, N. C. T. Holt Haywood, Wachovia Bank & Trust Co. Bldg., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231 W. Washington St., Greenville, S. C., Frank J. Swords, Sou. Dist. Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C. Phone 247. Also W. L. Hudson, Box 1313, Columbus, Ga.

WAK INDUSTRIES, 1314 S. Tryon St., Charlotte, N. C.

WATSON & DESMOND, 218½ W. Fourth St., Charlotte 1, N. C. Reprs.: John Wyatt, Jefferson Standard Bldg., Greensboro, N. C.; R. V. McPhail, 709 S. Jackson St., Gastonia, N. C.; A. J. Bahan, Woodside Bldg., Greenville, S. C.

WATSON & HART, 1001 E. Bessemer Ave., Greensboro, N. C.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: John Wyatt, 703 Jefferson Bldg., Greensboro, N. C.; Arthur J. Bahan, 810 Woodside Bldg., Greenville, S. C.

WEST POINT FOUNDRY & MACHINE CO., West Point, Ga.

WESTPORT FIBRE CORP., Westport, Mass., Hugh Neville, Jr., Pres. Va. and N. C. Repr.: Oliver D. Landis, Inc., 718 Queens Rd., Charlotte 7, N. C.; Ga., Ala. and Tenn. Repr.: J. W. Davis, 122 Dillingham St., Columbus, Ga.; S. C. Repr.: Ralph Gossett, 15 Augusta St., Greenville, S. C.

WHEELER REFLECTOR CO., INC., 275 Congress St., Boston 10, Mass. Sou. Reprs.: Ernest Hall, 901-A Sul Ross St., Houston, Tex.; Marshall Whitman, Bona Allen Bldg., Atlanta. Ga.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Machine Works Office and Plant, Dowd Road, Charlotte, N. C., R. I. Dalton, Sou. Agt.; Charlotte Repair Shop, Z. C. Childers, Sales Mgr.; Atlanta, Ga., Office, 1015 Healey Bldg., B. B. Peacock, Sou. Agt.; Spartanburg, S. C., 724 Montgomery Bldg., R. W. Dunn, Sou. Agt.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Repr.: William K. Shirley, 11 Wyuka St., Greenville, S. C.

WILKIN & MATTHEWS, 831 N. Tryon St., Charlotte 3, N. C. Hugh Wilkin and John Matthews.

WILSON CO., EMIL V., Greenville, S. C.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reprs.: C. R. Bruning, 302 N. Ridgeway Dr., Greensboro, N. C.; G. W. Searell, Rt. No. 15, Knoxville, Tenn.

If-

You are a mill manager,
superintendent, overseer . . .
and didn't see this ad ➧ ➧ ➧
(Page 48 of this issue),
study it and decide to
join us at Blowing Rock.

A. R. MARLEY, President
Southern Textile Association

Southern Textile Assn. Convention

This year's S.T.A. convention will be held June 21-22-23 at Mayview Manor, Blowing Rock, N. C. Mill managers, superintendents, overseers and other operating executives, whether or not members of the Southern Textile Association at present, are urged to attend.

As of April 10, all rooms at Mayview Manor had been reserved for the convention week-end. However, an unlimited number of European plan double rooms is still available at Green Park Hotel, a very comfortable establishment on the golf course not far from Mayview. These double rooms at Green Park are $8, $10 and $12 per day for two persons, and *reservation requests should be sent direct to the Green Park management accompanied by a one-day deposit.* The accompanying blank may be used for this purpose.

Since the Green Park dining room will not be in operation until later in the season, persons registered there may get meals at Mayview Manor ($1.50 breakfast, $2.50 luncheon, $3.50 buffet supper Thursday night, and $5 banquet Friday night—plus 3% sales tax and 10% gratuity) or at the several public restaurants in the business district of Blowing Rock.

In addition to Green Park facilities, rooms (with or without meals—American or European plans, respectively) are available at other hotels and inns. These include Hotel Skyland (35 rooms, American plan), Martin House (28 rooms, American), Watauga Inn (25 rooms, American), Sunshine Inn (15 rooms, American), Skyway Lodge (ten rooms, American), and Parkway Hotel (ten rooms, European). Rates at Martin House are $6 and up per day single, $12 and up per day double; at Watauga Inn, rates are $7 and up per day single, $12 and up per day double. Information about charges at the other establishments may be secured direct from their managements. For information about smaller lodges and tourist courts, write to the Blowing Rock Chamber of Commerce.

Arrival should be scheduled for Thursday afternoon, since activity begins that evening with a buffet supper. The first business session will take place Friday morning; that afternoon there will be the annual golf tournament and bingo game, followed by the Associate Members Division reception and banquet that night. The convention will end Saturday morning with a final business session and election of new officers for 1951-52.

Mrs. Helene Williams, Manager
GREEN PARK HOTEL
Blowing Rock, N. C.

Please enter the following double room reservation in my name for the Southern Textile Association convention June 21-23:

(Check one)

_______$ 8 per day (third floor)

_______ 10 per day (rear view)

_______ 12 per day (front view)

This amount covers daily charge for myself and

_______________________________ (name)

Signed: _______________________________ (name)

_______________________________ (firm)

____

_______________________(street, number & city)

CLASSIFIED ADVERTISING

WANTED WANTED WANTED

40". Cotton Cards, Whitin, Saco-Lowell or Saco Pettee.
2 10 x 5 Saco-Lowell Roving Frames.
2 Abbott Quillers.
Spinning 3½" gauge or wider.
Twisters 4" Rings or larger.
Tape drive spinning spindles.

WILSON LEWITH MACHINERY CORP.

Post Office Box 4100
Charlotte 1, N. C.
Phone 4-2402
Warehouse: Wilkinson Blvd.
Behind Barbecue Lodge

CARD GRINDER

First class Card Grinder to work on cotton and woolen cards. Wages $1.60 per hour. Plant located in Northern New Jersey.

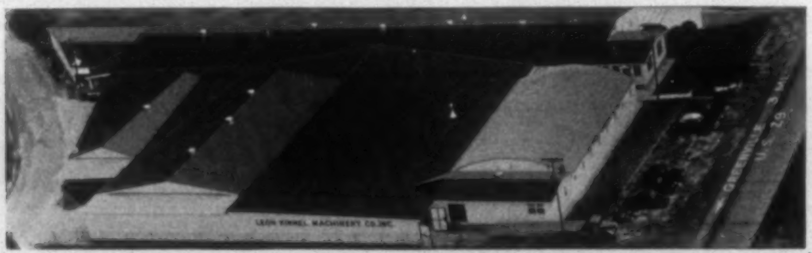
Write "GRINDER," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

MACHINERY FOR SALE

Available Immediately

6—Saco-Lowell Sliver Lap Machines; 9" Lap, 1933-36 Model.
94—Del. 1946 Model Drawing; 5-Roll; Long Staple.
8—Del. Saco-Lowell 5-Roll Controlled Draft Drawing.
4—Multi-Needle Quilting Machines.

Write "AP," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.



LOOM SPECIALISTS

Largest Warehouse Stock In The South
WE BUY, SELL OR TRADE USED TEXTILE MACHINERY AND SUPPLIES

P. O. Box
1316

Phone
2-2721

LEON KIMMEL MACHINERY COMPANY

OFFICE AND WAREHOUSE: NEW SPARTANBURG HIGHWAY — GREENVILLE, S. C.

EATON & BELL
Patent Attorneys
904 Johnston Bldg., Charlotte, N. C.
753 Munsey Bldg., Washington, D. C.

A confidential service to employer and employee, serving Executives, Superintendents and Department Heads throughout the Western Hemisphere. Inquiries invited.

NATIONAL TEXTILE
EMPLOYMENT SERVICE
Box 1301, Atlanta, Ga.;
Box 1674, Charlotte, N. C.;
Box 7545, Philadelphia, Pa.;
Box 1490, Boston, Mass.

POLICE SUPERINTENDENT

Former New York City police officer, age 44, with twenty years' experience in administration and enforcement, desires industrial, institutional or municipal connection in the Carolinas or Georgia. Available for personal interview.

Write "Officer," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

● If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.

WANTED—Position as Master Mechanic. Twenty years' experience and can furnish good reference. 50 years old. Suitable to be located anywhere in South, Now employed but desire to make change. Write "Master Mechanic," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

POSITION WANTED—Overseer Carding and Spinning. Experienced. Thoroughly reliable. Good references. Write "Card-Spin," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

WANTED—Position as superintendent. Now employed as assistant superintendent. Long experienced as superintendent and overseer of carding and spinning. Good references. Middle aged. Write "B. F. T.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Position as Master Mechanic. 20 years' experience with electrical and mechanical equipment in cotton textile plants. Now employed but desire to make change. Excellent references as to ability and character. 38 years old. Write "GBR," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

RAYON TECHNOLOGY

Prepared by the Textile Research Department of the American Viscose Corporation

278 pages, 6 x 9, Illustrated, $4.25

Brings you modern technological methods and techniques for handling rayon on machinery originally designed to handle natural fibers, as well as on newly developed equipment. It shows mill men in all divisions of the textile industry the most effective methods for processing rayon into yarn, greige goods, and finishing fabrics. Designed as a practical guide by outstanding technicians in the field, this book emphasizes the every-day applications of the methods described, stressing the HOW of rayon handling.

Order from:

TEXTILE BULLETIN

Charlotte, N. C.

HANDY SUBSCRIPTION BLANK

Please enter my subscription to TEXTILE BULLETIN for __one year at $1.50 or __three years at $3.00.
(Check) (Check)

SIGNED_______________
POSITION_______________
FIRM_______________
ADDRESS_______________
____

______REMITTANCE ENCLOSED; ______SEND BILL.

Please Send Money Order or Check as we cannot be responsible for cash.

Mail to TEXTILE BULLETIN, P. O. Box 1225, CHARLOTTE 1, N. C.

(NOTE: In some cases four to six weeks are required in the processing of a new subscription before copies begin to reach you; please be patient.)

- If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.
- Firms having textile mill equipment for sale also find Textile Bulletin classified advertisements valuable in establishing business contacts.

GUARANTEED USED MACHINE SHOP EQUIPMENT IN STOCK

New Index Model 60 Horizontal Milling Machine. Motor in base.
No. 5 Foster Turret Lathe.
Whiton Automatic Gear Cutter.
No. 1 B & S Hand Screw Machine, Motorized.
New Atlas Drill Presses.
Peerless Power Hacksaw 6" x 6" Motorized.
14"x6' Vernon Lathe, Motorized.
18"x8' Boye & Emmes Lathe, Lima Drive.
16"6' Sidney Geared Head Lathe, Motorized.
24" Rockford Drill Press, Motorized.
1—20" Drill Press.
2—16" B. B. Sensitive Drill Presses, Motorized.
No. 13 Brown & Sharpe Automatic Spur and Bevel Gear Cutter.
No. 1 Warner-Swasey Turret Lathe, Motorized.
16"x6' Springfield Lathe, Motorized.

Above is partial listing. Advise us of your needs.

NEW METAL CUTTING TOOLS IN STOCK:

Barber-Colman—Hobs, Milling Cutters, etc.
Chicago-Latrobe—Twist Drills and Reamers.
Threadwell—Taps and Dies.
Heller Brothers—Files.
Putnam—End Mills.
Starrett—Saws.

APEX MACHINE TOOL SUPPLY

3107 Wilkinson Blvd. **Phone 3-1921** **Charlotte, N. C.**

POSITIONS OPEN—MEN WANTED: Manager cotton yarn and cloth mill (foreign); asst. mgr. jute spinning and overseer jute spinning (foreign); rayon cloth manufacturer, executive position; auditor; assistant director training; structural, mechanical, chemical, electrical and designing engineers; master mechanics; methods engineer; tricot machine mechanic; overseer weaving plain Draper cotton looms, $125 wk.; expert rayon loom fixer or boss weaver for traveling position; salesman for warp sizing materials; overseer woolen carding and spinning; textile machinery salesman; tricot fabric dyer; expert fixer to overhaul Draper looms. LIST YOUR CONFIDENTIAL APPLICATION WITH US to keep informed of attractive positions open in the textile mills.

SPECIALISTS IN PLACING AND FURNISHING TEXTILE MILL EXECUTIVES

CHARLES P. RAYMOND SERVICE, INC.

294 Washington Street Phone: LIberty 2-6547 Boston 8, Mass.

Before Closing Down

– TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED –

PERSONALS

E. V. Albrechtson of E. I. du Pont de Nemours & Co., Inc., recently established his headquarters at Kinston, N. C., to take up his duties as service superintendent and public relations official for Du Pont which is erecting a $33,000,000 plant in Kinston to produce the new fiber, Dacron.

J. C. Cavin, overseer of the packing and shipping department of the dyeing and finishing plant of Reigel Textile Co. at Trion, Ga., recently was appointed chairman of the civil defense program for Trion.

Whimpy Jeffcoat, plant engineer at Opp (Ala.) Cotton Mills, recently was elected president of the Opp Lions Club. . . . L. H. Williamson, overseer of spinning at Opp, was elected first vice-president of the club.

J. H. Burgess, Sr., formerly of Lynchburg, Va., is now overseer of weaving at Gaffney (S. C.) Mfg. Co.

R. L. Collett, comptroller of Judson Mills, Greenville, S. C., was presented the merit award key and a scroll at a recent meeting of the Greenville Chapter of the National Office Management Association. Mr. Collett was honored for outstanding service to the Greenville Chapter of the national organization based on number of points earned over a period of years.

William H. Brayer, chief of the cotton section, textiles branch, consumer soft goods division of the Office of Price Stabilization, is resigning from that post June 1 to return to his position as vice-president of Cone Export & Commission Co., New York.

W. C. Miller, treasurer of Industrial Rayon Corp., Cleveland, Ohio, since 1945, was elected controller and treasurer May 16 at the organization meeting of the board of directors. Other officers and directors were re-elected.

Edward J. McBride, president of Edward J. McBride Co., Inc., Philadelphia manufacturer of creels and other warp preparatory equipment, is currently in Europe on a month's inspection trip of European mills. This follows a recent trip of Mr. McBride to Cuba for inspection of mills there preparatory to design of equipment especially for the needs of overseas mills.

Robert H. Pharr has resigned as overseer of carding in the No. 2 Plant of Mandeville Mills, Inc., Carrollton, Ga., to take another position. George F. Wynn, overseer of the No. 1 Plant carding department, has taken charge of both card rooms temporarily.

T. B. Hunt has sold his interest in Kingston (Ga.) Mills, Inc., in order to devote his entire time to his firm, Hunt Engineering Co. of Rome, Ga., which specializes in the erection, overhauling and re-erection of all types of textile machinery, and handles a line of mill supplies.

William B. Martin has been appointed manager of the Charlotte, N. C., branch office of H & B American Machine Co. Mr. Martin, whose father was president of the company for a number of years, was employed in various departments of the company from 1932 until 1940. Since his return from service in World War II he has been associated with the engineering firm of Francisco & Jacobus as Southern manager. With H & B he will supervise the company's sales activities in North and South Carolina assisted by R. L. McCauley as assistant manager of the Charlotte office and William Johnstone as manager of the Greenville, S. C., office.

Walter S. Montgomery, president and treasurer of Spartan Mills, Spartanburg, S. C., recently was made a member of the National Committee of Foundations and Trusts. Mr. Montgomery is chairman of the Spartanburg County Foundation.

W. N. Williams has been named operating vice-president of the Westvaco Chemical Division of Food Machinery & Chemical Corp. He will make his headquarters in New York City. Mr. Williams has been associated with Westvaco and its predecessor companies for over 20 years having been successively manager of the Barium Products, Ltd., plant at Modesto, Calif.; manager of Western operations at Newark, Calif., and more recently vice-president of production at New York. . . . Mr. Williams has named as his staff assistants Dr. K. C. Rule and Robert J. DeLargey. Dr. Rule has been assistant production manager at New York and formerly was staff assistant to the plant manager and head of process control at Westvaco's South Charleston, W. Va., plant. Prior to joining Westvaco, Mr. DeLargey was superintendent of Shell Chemical's Pittsburgh, Calif., ammonia plant and more recently assistant general manager of Grove Regulator Co. of Oakland, Calif.

Recently married at Spartanburg, S. C., were Miss Mary Love Cates, daughter of Mr. and Mrs. Robert Z. Cates, and John Edward Rollins Hayes, 2nd, son of Mr. and Mrs. Clifford B. Hayes. The bride's father is president of Arkwright Mills. The bridegroom is with William J. Moore, textile supply manufacturers' agent in Greenville, S. C., and his father is vice-president of Pacific Mills, Lyman, S. C.

A sales division has been organized by Pneumafil Corp., manufacturer of vacuum systems for spinning frames, and Uster Corp., distributor of various textile equipment items. The affiliated firms, headed by Charles R. Harris, have headquarters ~~at~~ Charlotte, N. C. James W. Stuart, who formerly was sales engineer for these affiliated companies in South Carolina, Georgia and a part of Alabama, has been appointed director of sales, a newly-created post. . . . George E. Archer, previously sales engineer covering North Carolina, Virginia, Tennessee and a portion of Alabama, has been made central regional manager. This territory embraces North Carolina, Virginia, Tennessee, Pennsylvania and the lower part of New York State. M. H. Dorsey is taking over representation in Pennsylvania and lower New York, replacing John Tillett, formerly of Philadelphia, who is returning to Charlotte as assistant to the regional managers. . . . J. A. McCall, who has been with the companies since last November and prior to that was superintendent of a mill in the Harden group, will take over the Georgia and Alabama area, making his headquarters in Atlanta. . . . As sales staff manager, H. C. Gresham will have supervision of sales office personnel, sales order department, advertising and sales promotion, installation, service and parts department. P. C. Withers continues in charge of installation.

OBITUARIES

James L. Beaver, 70, of Landis, N. C., one of the early overseers of the weave room at Micolas Cotton Mills, Opp, Ala., died April 21. Surviving are his wife, two daughters, four sons, three sisters and one brother.

Robert Cluett, Jr., 82, former vice-president of Cluett, Peabody & Co., died May 15 at his home in Rye, N. Y. Mr. Cluett joined the firm in 1901, the year it was organized, as secretary. He was elected vice-president in 1907. He retired 35 years ago and had resided in Rye, N. Y., ever since. Surviving are a son, a brother and two grandchildren.

William T. Joyce, formerly general plant manager for United States Finishing Co. and later presidept and general manager of S. Slater & Sons Co., died May 21 at Providence, R. I.

John H. Lacouture, 66, chairman of the board of Guerin Mills, Inc., Woonsocket, R. I., died May 10. Mr. Lacouture was made chairman of the board Feb. 13, when he retired as president and treasurer, posts he had held for 15 years. Four sons and two daughters survive.

David C. Scott, 66, an internationally known authority in the field of physical testing and president of Scott Testers, Inc., Providence, R. I., died May 12 in that city. One of the early members of the American Society for Testing Materials in 1914, he had devoted life-long study to the testing of textiles and other materials and had given many papers before meetings of technical groups and had published articles of a professional nature. Mr. Scott had been an officer of Scott Testers, Inc., and its predecessor company, Henry L. Scott Co., since 1900 and its president since 1936. He is survived by two sons who have in recent years been in charge of the management of Scott Testers, Inc., James M. Scott, treasurer, and David C. Scott, Jr., secretary.

Havila B. Taylor, who retired several years ago as head of the stock department of the Lawrence (Mass.) Print Works, died recently. His previous associations include Arnold Print Works, North Adams, Mass.; Chadwick-Hoskins Co., Charlotte, N. C., and Pacific Mills. Surviving are his wife, five daughters and a son.

James B. Utley, 46, research chemist at Dan River Mills, Danville, Va., died May 18. Mr. Utley joined Dan River Mills in 1942 and before that had done textile research at Burlington, N. C. Surviving are his wife, a daughter, his mother, four brothers and two sisters.

MILL NEWS

Anderson, S. C.—Textron, Inc., is to build a new rayon weaving mill at about the midway point on the old Greenville-Anderson highway. It will be about six miles from Pelzer. Grading operations are now underway but no date for actual construction has been set. J. E. Moore, acting construction superintendent for Daniel Construction Co. of Greenville, said the mill will cover about four acres of ground. Mr. Moore said it would surpass in size all Textron plants in this area except the one at Williamston.

Glendale, S. C. — A modernization-expansion program at Glendale Mills, Inc., and plant village, costing in excess of $1,000,000, is nearing completion. A new addition to the plant, scheduled for completion in July, will house 8,000 new spindles, 4,500 twisters and 23 carders. When complete, the mill will have 45,000 spindles and 1,019 looms. In the mill village, old homes are being completely re-done and a new sewage system is being installed.

Williamston, S. C. — It was recently announced that Daniel Construction Co. of Greenville, S. C. and Birmingham, Ala. has work under way on a $429,144 addition to the Textron Southern Williamston plant, scheduled for completion Aug. 1. The new 84 by 537-foot structure follows the erection of a two-story expansion of the Williamston plant last year, which provided for slasher and cotton storage and enlarged the weave room and spinning room, completed by the Daniel Construction Co. The new addition was begun Feb. 12, 1951.

Marion, N. C.—McKoy-Helgerson Co. of Greenville, S. C., has been awarded the contract for construction of an addition to Plant No. 1 of Clinchfield Mfg. Co. Cost of the proposed addition was not stated. Architect-engineer for the project is the McPherson Co. of Greenville, S. C.

Laurel Hill, N. C.—A modernization and expansion program at Morgan Cotton mills, Inc., will include revamping of the card room and construction of a new spinning building. Fiske-Carter Construction Co. of Spartanburg, S. C., has been awarded contract for construction work. Architect-engineer for the project is the McPherson Co. of Greenville, S. C.

Cherokee, Falls, S. C. — A five-hour fire May 17 damaged 2,000 bales of cotton valued at $400,000 at the warehouse here of Henrietta Mills. Plant officials would give no estimate of the loss; however, it was reported that most of the cotton was damaged by fire and water.

Salisbury, N. C.—A rayon and nylon throwing plant is to be constructed here by Oscar Heineman Co. of Chicago, Ill. The plant, which will employ about 100 at the outset, will be put under construction as soon as federal clearance for building can be obtained.

Laurens, S. C.—Officials of Woonsocket (R. I.) Worsted Co. have announced plans to locate one unit of their new plant in Laurens provided that a building be erected and leased to them. The payroll of the plant would be around $350,000 annually, it is estimated. Richard C. O'Brien, a Woonsocket Worsted official, is listed as president of the recently-incorporated Palmetto Worsted Mills at Laurens (*see* Page 113, this issue).

New York, N. Y.—Joseph H. Axelrod, president of Wamsutta Mills, May 19 announced that a survey is being made to select a location in the South for a site for expanded facilities. He stated: "It will be management's proposal that we proceed as rapidly as possible with this project subject to restrictions associated with the defense effort."

Waterville, Ohio—Representatives of Glass Fibers, Inc., recently surveyed sites in Georgia, Alabama and South Carolina seeking a favorable location for construction of a plant. At a recent date, no announcement had been made as to any decision.

Dyersburg, Tenn.—A nearly-completed modernization program at Dyersburg Cotton Products, Inc., will include the installation of 20 new Whitin long-draft spinning frames and four Saco-Lowell cards in the cotton division. The 20 new spinning frames are built with 240 spindles each, making a total of 4,800 new spindles. Cost of the new equipment is estimated at about $200,000.

Greensboro, N. C.—The finishing plant of Burlington Mills Corp. was damaged slightly May 15 when three 50-gallon drums containing an acid used in finishing operations exploded. The blasts blew out one window of the plant and started a fire.

Raleigh, N. C. — Stanley Lawton of Boston, Mass., an official of the closed Premier Worsted Mills at Raleigh, N. C., stated May 10 that he has engaged in negotiations for sale of the company. He declined to identify the interested party.

Greenville, S. C.—F. W. Poe Mfg. Co. of Greenville has recently let contract to Daniel Construction Co. of the same city for the construction of the $100,000 warehouse.

Automatic Colorimeter

Currently available to the industry is the Honeywell Instrumentation Data Sheet 10.10-3 which describes the use and operation of a new self-standardizing apparatus which graphically evaluates the color of raw cotton. Produced by the Henry A. Gardner Laboratory, Bethesda, Md., the instrument provides a direct reading on a two-dimensional scale of the graphic values of reflectance and yellowness for various grades of raw cotton. The apparatus is simple to operate and users of the equipment can learn to interpret and evaluate the results of measurements in a relatively quick time. Inquiries should be addressed to Minneapolis-Honeywell Regulator Co., Brown Instruments Division, Station 40, Wayne and Windrim Avenues, Philadelphia 44, Pa.

Pocket-Size pH Meter

A revolutionary pocket-size pH meter and companion probe unit, now available for the first time from Analytical Measurements, Inc., 585 Main St., Chatham, N. J., permits instant, on-the-spot pH determinations anywhere. Completely self-contained with batteries, in a bakelite case three inches by 5⅞ inches by 2½ inches, this instrument is furnished, camera fashion, in an ever-ready case with novel plastic tubes of buffer and KC 1 solutions. Total weight is three pounds. Both water-proof and fungus-proof, the ever-ready case comes with a combination hand-and-shoulder strap, allowing the instrument to be slung over the shoulder or hung around the neck leaving both hands free.

Supports and beakers are completely eliminated by combining the calomel and glass electrodes with the sample holder, in a single polyethylene probe unit. This revolutionary idea of combining the sample holder with the electrodes (patents pending) completely protects them and requires a sample volume of only 0.5 ml.

The meter is scaled from two to 12 pH for easy reading, and a simple adjustment gives readings from 0 to 14. Accuracy of 0.1 pH is obtainable. Hearing-aid type batteries provide up to 1,300 hours of operation. The electrometer tube, switch and input connector are sealed in a single unit to ensure freedom from high humidity difficulties. The one-knob control and continuous reading features of this instrument simplify operation for untrained personnel. Grounded samples can be directly measured because of no external power connections.

Elimination of "grab samples" and trips to the laboratory by the ever-ready features of this new pocket pH meter and probe unit, open new fields for on-the-spot pH control.

Steam-Water Diffuser

A new catalog sheet, made available by O'Brien Steam Specialty Co., Inc., Heffernan Building, Syracuse, N. Y., illustrates and describes the new O'Brien all-bronze diffuser, designed for the quiet mixing of steam and water to produce hot water. Specially designed for use in the O'Brien steam-mixer water heater, the new diffuser is also efficient for open-tank heating. Staggered holes in scientifically spaced inner and outer shells break the steam into numerous small streams and provide quiet diffusion, the firm states.

Air Conditioning Guide

For any industrialist who's been promising himself that "some day I'll look into this matter of air conditioning," Westinghouse has a 20-page planning guide he'll find most helpful. All technical information has been reduced to understandable, down-to-earth terms; the kind that prove most helpful to the busy businessman.

The reader is first introduced to the five vital functions an air conditioning system should perform: control temperature; control humidity; clean air; circulate air; and blend outside air with re-circulated air. He is then shown the six components needed to do this job: circulating fan; air cleaner; heating or cooling coil; compressor; condenser, and humidifier.

What to expect from an air conditioning system comes next; after that, factors to consider when actually planning a system. Where and when to use a "within-the-space" conditioner, a factory assembled central plant type unit, or a field assembled system is covered in some detail. Illustrations of each kind of equipment are included along with photographs of interiors where these are installed. Details and salient features of Westinghouse equipment are included.

For copy of *A Planning Guide for Industrial Air Conditioning* (Booklet B-5160) write the Westinghouse Electric Corp., Sturtevant Division, 200 Readville St., Hyde Park, Boston 36, Mass.

Electric Pallet Truck

Following exhaustive tests under all kinds of operating conditions, Towmotor Corp., Cleveland, announces this new and improved Model W electric pallet truck. The Model W is a compact, powerful, pallet-type truck built to handle pallet-loads weighing up to 4,000 pounds. Among the new and advanced features of this easily maneuverable truck is a new contactor panel, a positive-action brake with foolproof deadman control, improved differential action, and all-rubber, dual trailer wheels for smoother operation.

Operator controls of the Model W are conveniently located for "finger-tip" operation with either the right or left hand, making it possible for the operator to work from any angle in picking up or depositing loads. A key switch provides positive turn off of power to the dual control buttons, preventing accidental or unauthorized use of the truck.

Extensive research in the development of circuits, operating controls, utilization of power and general construction of the Model W Towmotor electric pallet truck has resulted in a unit designed to give long periods of dependable, efficient, full-power service in handling pallet-loads up to two tons. A booklet giving complete operating data and specifications of the Model W electric pallet truck may be obtained by writing Towmotor Corp., Cleveland 10, Ohio.

Index to Advertising

Page

—A—

Aldrich Machine Works 55
Allen Co., The 85
American Aniline Products, Inc. 11
American Viscose Co. 51
Anheuser-Busch, Inc. 109
Apex Machine Tool Supply 149
Ashworth Bros., Inc. 8

—B—

Bachmann Uxbridge Worsted Corp. 5
Bahan Textile Machinery Co. 16
Bahan Textile Machinery Co. 120
Bahnson Co., The 10
Baily & Co., Joshua L. 141
Barber-Colman Co. 14
Barkley Machine Works 136
Barreled Sunlight Paint Co. 7
Best & Co., Edward H. 83
Biberstein, Bowles & Meacham, Inc. 129
Booth Co., Benjamin 119
Borne Scrymser Co. 123
Bradley Flyer & Repair Co. 141
Bryant Supply Co., Inc. 103
Bullard Clark Co., The 76
Burkart-Schier Chemical Co. 93

—C—

Calgon, Inc. (Hagan Corp.) 26
Carbomatic Corp. 95
Carolina Loom Reed Co. 124
Carolina Machinery Co., Inc. 127
Carolina Refractories Co. 128
Carter, Inc., A. B. 71
Chapman Electric Neutralizer Co. 126
Charlotte Chemical Laboratories, Inc. 128
Clinton Foods, Inc. 104
Cocker Machine & Foundry Co. 37
Coleman Co., Inc. 75
Cole Mfg. Co., R. D. 98
Corn Products Sales Co. 4
Crabb & Co., Wm. 136
Crawford & Garner, Inc. 139
Crompton & Knowles Loom Works 6
Curran & Barry 140
Cutler-Hammer, Inc. 21

—D—

Daniels, C. R. 107
Dary Ring Traveler Co. 106
Dayton Rubber Co. 24 and 25
Dillard Paper Co. 19
Dixie Textile Machine Co. 83
Dixon Lubricating Saddle Co. 108
Draper Corp. 3
Dronsfield Bros. 139
Du Pont de Nemours & Co., E. I.
Dyestuffs Div. 23

—E—

Eaton & Bell 148
Engineering Sales Co. 98
Excel Textile Supply Co. 118

—F—

Ferguson Gear Co. 111
Forbes Co., Walter T. 122

—G—

Gastonia Brush Co. 126
Gastonia Mill Supply Co. 136
Gastonia Roller, Flyer & Spindle Co. 140
Gastonia Textile Machinery Co., Inc. 125
Gastonia Textile Sheet Metal Works, Inc. 28
General Dyestuff Corp. 47
Gossett-Mason, Inc. 40
Graton & Knight Co. 45
Greensboro Loom Reed Co. 81

—H—

Henley Paper Co. 27
Houghton Top Co. 126
Howard Bros. Mfg. Co. 32

—I—

Ideal Industries, Inc. 39
Ideal Machine Co. 67
Industrial Electronics Corp. 103
Iselin-Jefferson Co., Inc. 13

—J—

Jacobs Northern and Sou. Div., The Bullard
Clark Co. 76
Jarrett & Co., Cecil H. 44
Jenkins Metal Shops, Inc. 64
Johnson, Charles B. 53

—K—

Kearny Mfg. Co., Inc. 120
Keever Starch Co. 83
Kimmel Machinery Co., Leon 148

Page

—L—

Lambeth Rope Corp. 104
Landis, Inc., Oliver D. 33, 119, 132
Laurel Soap Mfg. Co. 95
Lewith Machinery Corp., Wilson 148
Loper Co., Ralph E. 132

—M—

McLeod Leather & Belting Co. 112
Marquette Metal Products Co., The 9
M B Mfg. Co., Inc. 33
Meadows Mfg. Co. 12
Medley Mfg. Co., Ltd. 34
Merrow Machine Co. 129
Mooresville Iron Works 128
Moore & Thies 128

—N—

National Aniline Div. Allied Chem. & Dye Corp. 29
National Ring Traveler Co. 133
N. Y. & N. J. Lubricant Co. 117
Norlander-Young Machine Co. 75
Norris Bros. 121

—O—

Old Dominion Box Co. 88

—P—

Pabst Sales Co. 88
Paddock Co., J. C. 101
Page Belting Co., The 139
Pease & Co., J. N. 137
Penick & Ford, Ltd., Inc. 81
Perfecting Service Co. 121
Piedmont Processing Co. 140
Pilot Life Insurance Co. 111
Precision Gear & Machine Co. 104
Proctor & Schwartz, Inc. 113

—R—

Raybestos-Manhattan, Inc.
North Charleston Plant 92
Ray Chemical Co. 132
Raymond Service, Inc., Charles P. 149
Rhoads & Sons, J. E. 103
Rice Dobby Chain Co. 81
Robert & Co. Associates 111
Rose & Co., E. F. 133
Roy & Son Co., B. S. 107
Royce Chemical Co. 153

—S—

Saco-Lowell Shops, Inc. 20
Saco-Lowell Shops, Inc. 22
Sandoz Chemical Works, Inc. 31
Sargent's Sons Corp., C. G. 95
Schmidt Mfg. Co. 137
Seydel-Woolley & Co. 137
Sindar Corp. 88
Singleton & Sons Co., Russell A. 75
Sirrine Co., J. E. 141
Slip-Not Belting Corp. 85
Sonoco Products Co. Front Cover
Southeastern Sound & Electronics Corp. 126
Snap-On Tool Corp. 115
Southern Electric Service Co. 98
Southern Spindle & Flyer Co. 43
Solvay Sales Div. Allied Chem. & Dye Corp. 92
Standard Mill Supply, Inc. 148
Steel Heddle Mfg. Co. 86 and 87
Stevens Co., J. P. 140

—T—

Terrell Machine Co., Inc., The 38
Texas Co., The Back Cover
Textile Apron Co. 71
Textile Shops, The 133
Theiler Corp., H. J. 36
Thornburg Machine Works, Inc. 73
Tide Water Associated Oil Co. 35

—U—

U. S. Ring Traveler Co. 73
Universal Winding Co. 69

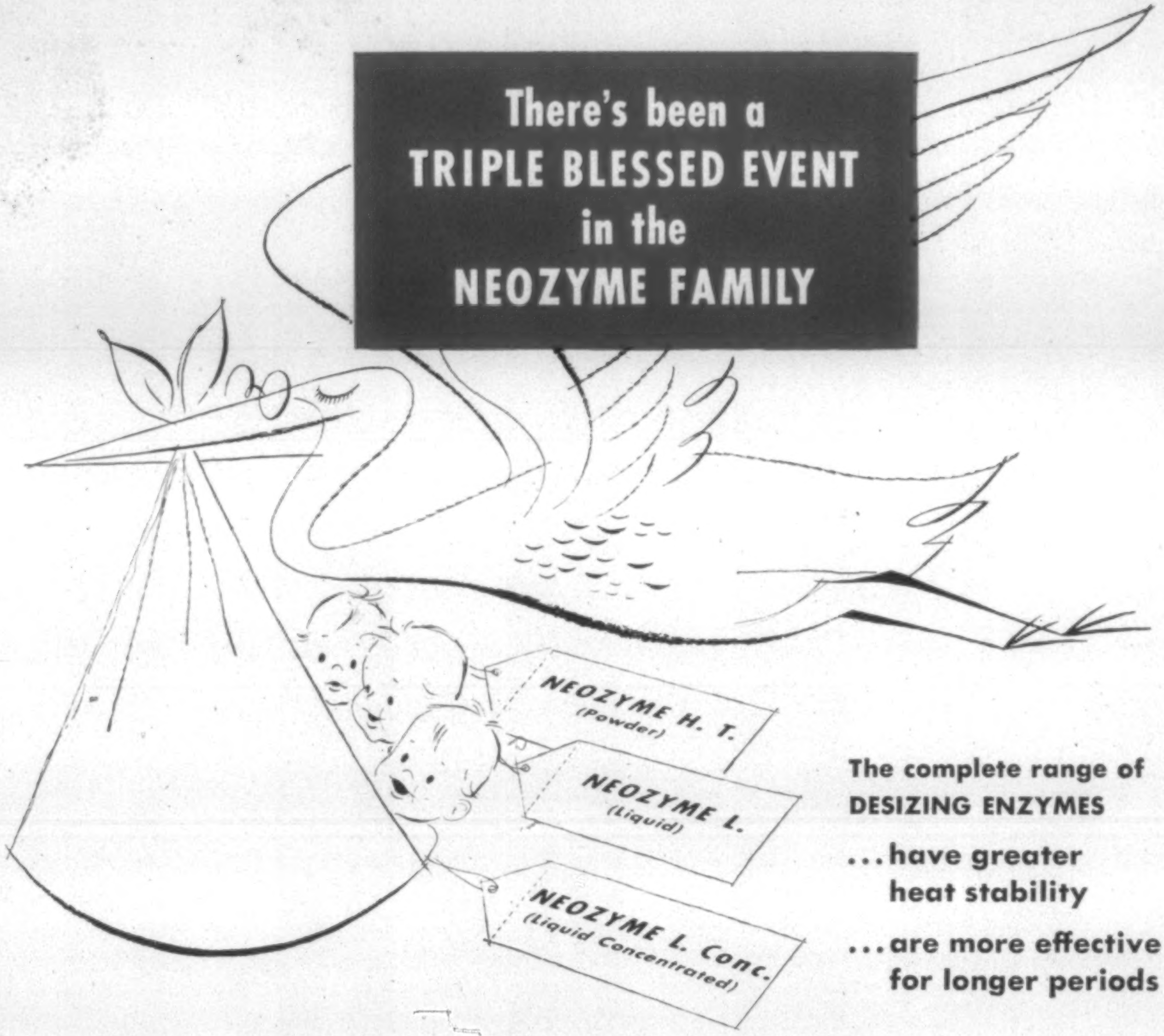
—V—

Valentine Co., J. W. 141
Veeder-Root, Inc. 2
Vogel Co., Jos. A. 101

—W—

WAK Industries 111
Warwick Chemical Corp. 41
Whitehead Engineering Co. 116
Whitin Machine Works 15
Whitinsville Spinning Ring Co. 129
Wickwire Spencer Steel Div. of C. F. & I. 107
Wilkin & Matthews 119

There's been a TRIPLE BLESSED EVENT in the NEOZYME FAMILY


NEOZYME H. T.
(Powder)
NEOZYME L.
(Liquid)
NEOZYME L. Conc.
(Liquid Concentrated)

The complete range of DESIZING ENZYMES

. . . have greater heat stability

. . . are more effective for longer periods

Check the advantages of the NEOZYME group. See how they meet every demand you can make for effective, heat-stable desizing agents.

HEAT STABILITY . . . While the optimum desizing temperature is 160° F. their stability to higher temperatures is better than that of other desizers thus eliminating most of the problems of high speed operation.

FORMULAE CONTAIN BUFFERS . . . Automatically give optimum pH. No salt addition necessary with NEOZYME HT to activate the enzyme.

CONTROLLED QUALITY . . . Eliminates costly reprocessing due to the use of non-uniform products.

STABLE IN STORAGE . . . HT can be kept indefinitely under ordinary storage conditions; NEOZYME L & L Conc. for reasonable inventory periods.

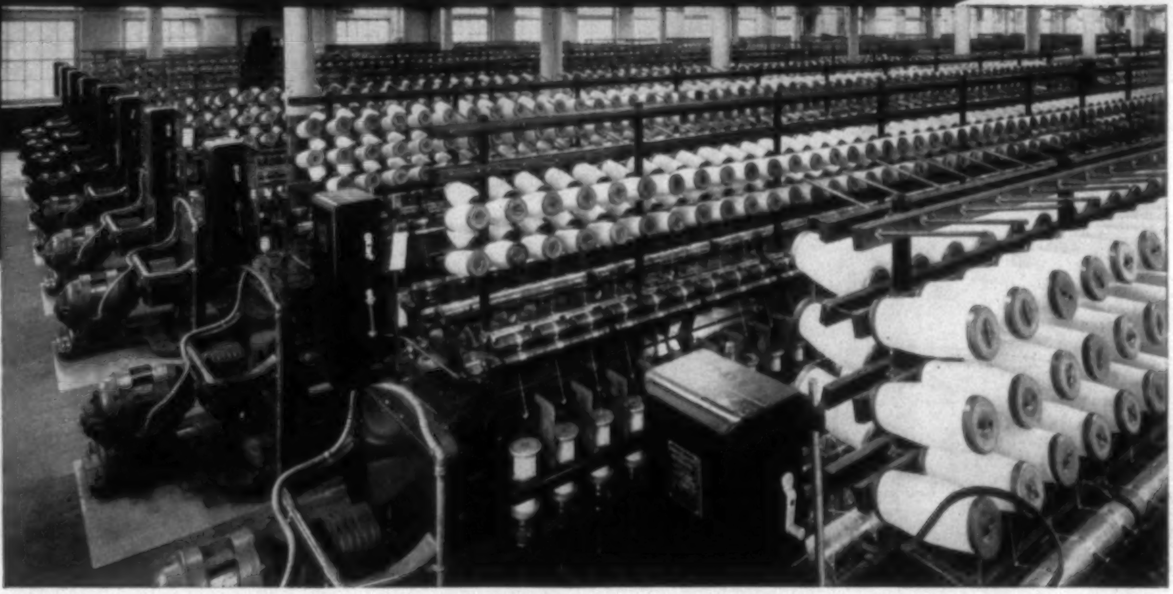
SERVICE . . . Royce's Technical Service, backed by many years of practical textile experience is always available.

Royce

CHEMICAL COMPANY • CARLTON HILL, NEW JERSEY

Manufacturers of Chemicals for the Textile Industry

TAKE 1 STEP... REDUCE 3 COSTS



Lubricate anti-friction bearings with TEXACO REGAL STARFAK

[illegible]ERE are the three costs that *Texaco Regal Starfak* – used in your grease-lubricated high-speed ball and roller bearings – will reduce for you: 1) your maintenance costs, 2) your power costs, and 3) your lubrication costs.

Texaco Regal Starfak excels in resistance to oxidation. You won't have to worry about gum formations nor about separation or leakage. *Texaco Regal Starfak* stays *in* the bearings, gives top protection under the toughest working conditions. Thus, bearings last longer . . . maintenance costs less.

Texaco Regal Starfak minimizes "drag" in starting and running your machines, reduces power consumption. And *Texaco Regal Starfak's* longer lasting protection means fewer applications . . . less lubrication expense.

Let a Texaco Lubrication Engineer show you how Texaco cost-saving lubrication can effect economies throughout your mill. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

TUNE IN . . . TEXACO STAR THEATER starring MILTON BERLE on television every Tuesday night. See newspaper for time and station.